

Quant:

1. Col A: Slope of line joining points  $(-5, 3)$  &  $(-2, 3)$   
Col B: Slope of line joining points  $(2, 3)$  &  $(0, -2)$

2. If ' $x$ ' is a positive integer and  $x^2 = 72$ , then  
Col A:  $x/36$   
Col B:  $2/x$

3. Given a series 3, -5, 2, -1, 3, -5, 2, -1.....  
Find the 97th term?

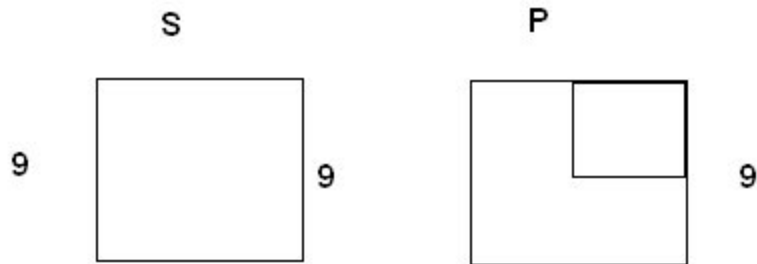
4. If  $x^* = 1 - x$  and  $y^* = x$ , then what is the value of  $y$ ?

5. If a plant grows half of its previous height every day, then what will be its ratio of increase of height for 4th day to 7th day increase?

6. The value of  $9^{60}/3^{20}$ ?  
A.  $3^{160}$   
B.  $3^3$   
C.  $3^2$   
D.  $3^{100}$   
E.  $3^{40}$

7.  $3\sqrt[3]{150} = ?$   
A.  $2\sqrt[3]{15}$   
B.  $2\sqrt[3]{17}$   
C. 4  
D. 5  
E. 6

8.

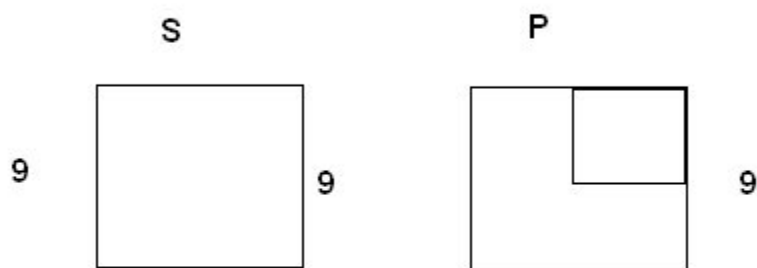


Given a figure of two similar squares 'S' & 'P' of side length 9

Col A: Area of square 'S'

Col B:  $\frac{4}{3}$ (Area of square 'P')

9. Given the ratio of the angles of figure below is  $x/y = \frac{2}{3}$



If the ratio of  $x/y = 3/2$ , then the value of angle  $x$  is?

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- 1...0
- 2...c
- 3...3
- 4...1-x
- 5...8/37
- 6...d
- 7... 8/27
- 8...b
- 9...no..sufficient...data 🗿

correct me if i'm wrong 😊

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...San

- 1 b
- 2 a
- 3 8
- 4  $1-x^*$
- 5 ... how u solve this ? increase for each day  $1/2 \Rightarrow$  1st is 1 2nd  $1+1/2$   
3rd 2 4th  $2 \frac{1}{2}$  5th 5 6  $5\frac{1}{2}$  7th 7  
ratio 4th day =  $2 \frac{1}{2} / 7 = 1/7$  😊
- 6  $3^{42}$  ???????
- 7  $15\sqrt{6}$
- 8 b

- 1. B
- 2. C (you got  $1/18$  in each columb)
- 3. 3
- 4.  $y=1-x$
- 5. ? san explain it to us, please!
- 6. D  $(9^{60} = 3^{120} \Rightarrow (3^{120})/(3^{20}) = 3^{(120-20)}=3^{100})$
- 7.  $15\sqrt{6}$
- 8. B
- 9. no sufficient data

my anwer is 8/27

let the initial height be h

now day one = it will increase by  $h/2$  so the new height will be  $h + h/2 = 3h/2$

dy 2 = it will increase by  $[(3h/2)/2] \ 3h/4$  so the new height will be  $3h/2 + 3h/4 = 9h/4$

dy 3 = -----by  $[(9h/4)/2] \ 9h/8$  so the ----- $9h/4 + 9h/8 = 27h/8$

dy 4 = -----by  $[(27h/8)/2] \ 27h/16$  so the ----- $27h/8 + 27/16 = 81h/16$

now see the trend for increase in height: numerator \*3 and denominator \*2

so dy 5 =  $81h/32$

dy 6 =  $243h/64$

dy7 =  $729h/128$

Now we don't have to find the increase in height compared to day 1! we have to check it with respect to previous day not the first day!

day 4 increase =  $27h/16$

and day 7 =  $729h / 128$

So the ratio is  $8/27$  solve and get!

I hope it is clear ... 😊

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...San

If  $x^* = 1 - x$  and  $y^* = x$ , then what is the value of  $y$ ?

substitute  $y$  for  $x$  in  $x^* = 1 - x$

then plug in the option 1,2,3

for 3rd option :

$$\begin{aligned}y^* &= 1 - x \\&= 1 - (1 - x) \\&= 1 - 1 + x \\&= x\end{aligned}$$

clear!!!

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...San

1. Col A:  $(2^{\text{😬}})^{(15^{\text{😬}})} + (2^{\text{😬}})^{(15^{\text{😬}})}$   
Col B:  $(5^{10}) \cdot (8^2)$

2. A square was given and another square was formed by joining mid points of the square. If perimeter of larger square was given 'X'.

Col A: Perimeter of smaller square

Col B:  $X/2$

3. Col A:  $(7!)^2$

Col B:  $13!$

4. If  $f(n,k) = n! / (k! \cdot (n-k)!)$ , then

Col A:  $f(16,3)$

Col B:  $f(16,14)$

5. If product of  $xyz$  is odd integer, then which of the following is even

A.  $x(y+z)$

B.  $xy+z$

C.  $yz+x$

& so on....

6. There is a series of odd numbers from 1 to  $n$  where  $n$  is a odd number. What is the probability that a number selected at random will be an odd number?

7. The slope of line  $XY$  is given as  $-1/2$ .

Col A: X intercept of Line

Col B: Y intercept of Line.

answers

1) COL B GREATER

2)COL A GREATER

3)COL B GREATER

4)COL A GREATER

5)ALL THE OPTIONS ARE CORRECT MAY BE IT IS ALSO ONE OPTION

6)  $N+1/(2N)$

7)CANNOT BE DETERMINED

Hi rakesh,

All answers are correct except for the 1st and 6th one

1st Question

Col A:  $(2^8 * 15^5) + (2^8 * 15^5)$

Col B:  $(5^{10}) * (8^2)$

COLA:  $2(2^8 * 15^5) = 2^9 * 15^5 = 8^6 * 5^5 * 3^5$

COLB:  $5^{10} * 8^2$

Divide COLA with COLB  $= 8^4 * 3^5 / 5^5 = (8/5)^4 * (3^5/5) > 1$

Therefore COLA is greater

6th Question

There is a series of odd numbers from 1 to n where n is an odd number. What is the probability that a number selected at random will be an odd number?

When the series is of odd numbers, no matter what you take, it will be an odd number, therefore the probability is 1

Please correct me if I am wrong anywhere

Quant:

1. If  $a < 0 < b < c$ , then

Col A:  $ac/b$

Col B:  $ac$

2. If x & y are not equal to zero, then

Col A:  $\sqrt{x} + \sqrt{y}$

Col B:  $\sqrt{x+y}$

3. If  $(x-2)(x-3)(2x-15)(4x+1) = 0$ , then find the product of maximum and minimum value of x?

4. Given that, if a person has 5 pair of socks of different colors and if 2 are chosen at random then what is the probability that both of

them are of same color?

5. If a clock shows exactly 4 'O' clock right now, then what will it show exactly 1195 hours later?

6. If  $x \neq 0$ , then

Col A:  $|x| - 2$

Col B:  $|x-2|$

7. If a point (1, 2) lies on the line  $Mx + Ky = 2$ , then

Col A:  $k$

Col B: 0

8. If it takes 't' mins to travel 'X' miles, then

Col A: The time taken in hours to travel 900miles is

Col B:  $15t/x$

9. The range of list-1 is 16 and range of list-2 is 10(approx values). If both the lists are combined then what will be the minimum value of their range?

10. If  $x, y, z$  are negative integers, then

Col A:  $x + y + z$

Col B:  $1/x + y + z$

11. Col A:  $0.01/1 - 0.01$

Col B:  $0.1/1 - 0.1$

12. In every month, a hospital is opened only in last week. If 10 people travel through bus to hospital, what is the probability that atleast two people travel on the same day?

13. If  $x < 0$ , then

Col A:  $-x$

Col B:  $|x|$

14. There is a swimming pool in the shape of an upright right circular cylinder whose base diameter is 20ft and depth(of cylinder) is

4ft. What is the volume of water, if the water is present at a uniform depth of 3ft 6inches?

15. If  $t^4 = 16$ , then

Col A:  $t$

Col B: 2

16. If  $[z]$  represents greatest value less than or equal to  $z$  and  $x$  &  $y$  are positive, then

Col A:  $[x] + [y]$

Col B:  $[x+y]$

17. Given that, there is a field with 'r' sections in which there are 's' sub- fields in each section. It is also given

that there are 5 employees  
for working and each one does the work equally. If there is an employee Annie who does the work of her and  
also  $\frac{1}{3}$  work of the  
other colleague, then  
Col A: Work done by Annie  
Col B:  $rs/4$

18. Which of the following operations below, would not affect the standard deviation of the above numbers  
A. When 6 is added to each number  
B. When 3 is added to each number.  
C. When each number is multiplied by some number  $x$   
D. When each number is divided by some number.  
(Question is similar to this)

19. There is a square floor with a smaller square carpet. The side of floor is 10% greater than that of carpet  
and the difference in the  
areas were given. What is the side of the carpet?  
(Question is similar to this)

20. If the probability of A doing a work is  $\frac{2}{3}$  and B doing it is  $\frac{4}{7}$ , then what is the probability of neither of  
them do it?

21. If  $t^4 = 16$ , then  
Col A:  $t$   
Col B: 2

22. If  $x, y, z$  are real positive numbers.  
Col A: Median of  $x, y, z$   
Col B: Median of  $x^2, y^2, z^2$ .

23. If  $x, y$  are two real numbers and  $x > 0$  &  $y < 1$ , then  
Col A:  $\text{mod}(x-y)$   
Col B: 1

24. If  $100 < x < 225$ , then  
Col A:  $\sqrt{x} + 20$   
Col B:  $\sqrt{900+x}$

25. If  $(n-2) \cdot (n-3) = 0$ , then  
Col A:  $-2n+1$   
Col B:  $2n-8$

26. The probability of A hitting a target is  $\frac{2}{3}$ . And the probability of B hitting the same target is  $\frac{4}{7}$ . So,  
what is the probability that  
neither of them will hit the target?

27. If  $a_k = \frac{1}{k-1/(k+1)}$ , then find out the summation of  $a_2$  to  $a_{100}$ ?  
(Here  $k, 2$  &  $100$  are suffixes)

September 30th Database Questions(few) were included in today's database.

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- 1) col A
  - 2) D
  - 3)  $-15/8$
  - 4)  $5c1/5c2$
  - 5) 11A.M
  - 6) D
  - 7) D
  - 8) 🤪C
  - 9) 10
  - 10) B
  - 11) B
  - 12)  $3/7$
  - 13) C
  - 14)  $350 \cdot \pi$
  - 15) D
  - 16) D
  - 17) A
  - 18) 🤪????
  - 19) 12
  - 20)  $1/7$
  - 21) D
  - 22) D
  - 23) D
  - 24) A
  - 25) D
  - 26)  $1/7$
  - 27)  $99/202$ .....
- correct me if i am wrong....

[quote="student"]4th one is  $5c1/10c2$  that is  $1/9$ [/quote]  
10th is d..try taking values of x,y,z as -1,-2,-3..ur answer will go wrong..

Quant:

1. Given Set A = 1, 2, 3, 4, 5,...m & Set B = 1, 2, 3, ...n where 'n' is even and 'm' is odd.

Col A: Percentage of odd numbers in A

Col B: Percentage of even numbers in B

2. If  $|3x-2| < 8$  then find the value of x?

3. If  $a_1, a_2, a_3, \dots, a_n$  are such that each term is 2 times the preceding term &  $p_1, p_2, p_3, \dots, p_n$  are such that each term is 3 times the preceding term. If  $a_1 = \text{xxxx}(\text{some value})$  and  $p_1 = \text{xxxx}(\text{some value})$  then find the least number of n such that  $P_n > A_n$ ?

4. In a school, there are 720 people. If 300 opted for course x, 350 for y, 200 for z, 100 opted for no course and 150 opted for exactly two courses then what is the number of



people who opted for all the three courses?

5. A group can charter a particular aircraft at a fixed total cost. If 36 people charter aircraft rather than 40, loss per person is 12\$. What is cost per person if 40 people charter it?

6. On a street, there are four houses which are to be painted. There is a choice of three colors, and one house will be painted with a single color. In how many ways can the houses be painted?

- A. 4
- B. 24
- C. 64
- D. 81

7.  $(\frac{1}{2} - \frac{1}{3}) + (\frac{1}{3} - \frac{1}{4}) + (\frac{1}{4} + \frac{1}{2}) = ?$


8. If  $-2 < x < -1$ , then

Col A:  $\frac{1}{x^3}$

Col B:  $\frac{1}{x}$

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- 1) A
- 2) cannot be determined
- 3) use GP formula
- 4) 80
- 5) ?
- 6) 81
- 7) 1
-  B

Quant:

1. Col A:  $(2^8) * (15^5) + (2^8) * (15^5)$

Col B:  $(5^{10}) * (8^2)$

2. A square was given and another square was formed by joining mid points of the square. If perimeter of larger square was given 'X'.

Col A: Perimeter of smaller square

Col B:  $X/2$

3. Col A:  $(7!)^2$

Col B: 13!

4. If  $f(n,k) = n!/(k! * (n-k)!)$ , then

Col A:  $f(16,3)$

Col B:  $f(16,14)$

5. If product of xyz is odd integer, then which of the following is even

A.  $x(y+z)$

B.  $xy+z$

C.  $yz+x$

& so on....

6. There is a series of odd numbers from 1 to n where n is a odd number. What is the probability that a number selected at random will be an odd number?

7. The slope of line XY is given as  $-1/2$ .

Col A: X intercept of Line

Col B: Y intercept of Line.

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Quant:

1. Given a rectangular block with measurements 12, 6 & 3. Find the volume of smallest cube formed by joining these rectangles?

2. If 'X' will be twice the age of her brother's present age after three years, then

Col A: X's Present age

Col B: X's brother's present age

3. If  $a < 0 < b < c$ , then

Col A:  $ac/b$

Col B:  $ac$

4. Col A:  $(7!)^2$

Col B: 13!

5. If  $-3 < x < 0$ , then

Col A:  $1/x$

Col B: -3

6. If 180 is the number of ways in which letters of a word is arranged, then which of the following words can be arranged in the same number of ways?

- A. CABBIE
- B. DEBBIE
- C. CHAD
- D. DEXTER
- E. MIKEY

(Similar to this)

7. If  $N = (36)^{(36)}$  &  $P = (71)^{(71)}$ , then

Col A: Units place of  $N+P$

Col B: Units place of  $N \times P$

8. The following represents a data and frequency table.

Data Frequency

5 15

10 20

15 25

20 15

25 20

Col A: The Probability of a data selected at 1/2 random

Col B: 10

9. A tanker contains 35,000 gallons of Oil, which delivers 100Gallons and 200 Gallons in 35 refueling stations. How many stations received 100Gallons and how many received 200Gallons of Oil?

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answers

1)  $12^{12} \wedge 12$

2)D

3)D

4)B

5)D

6)B

7)A

🤔?

9)data is wrong

DEBBIE

the total number of words can be formed will be

$6! / (2! * 2!)$

$6!$  = there are 6 letters

2! = E gets repeated twice

$$2! = B \text{ " " " " } ..$$

hope this helps.... 😊

for the 7 th

$36 \wedge 36 \implies 6 \wedge 6$  ==whose unit digit will be 6...

similarly  $71 \wedge 71 \implies 1 \wedge 1 = 1$

therefore  $N+P = 6 + 1 = 7$

$$N * P = 6 * 1 = 6$$

COL A is greater

hope this helps.... 😊

the answer to the 5th question seems to be b and not d

multiply both columns by  $x$  we get

column A to be 1 and B to be  $-3x$  now since  $-3 < x < 0$   $x$  is going to be negative always which makes column B positive and greater than 1. so answer is b

plz correct if am wrong

ur approach is rite but the value of x can be anything

say  $x = -1$

now Col A : 1

Col B : 3 so COL B is greater

now let  $x = - (1/6)$

then Col A : 1

Col B :  $-3 * (-1/6) = 1/2$  in this case Col A is greater

hence solution is undetermined .....D

hope i helped

1. In a group of men and women,  $\frac{1}{3}$  are men. If 2 women leave the group, then men will be  $\frac{2}{5}$  of the group. How many members are there in the group?
2. The value of  $(5\sqrt{2} + \sqrt{3})(\sqrt{2} - \sqrt{3}) = ?$

3. If  $a < 0 < b < c$ , then

Col A:  $ac/b$

Col B:  $ac$

4.

Given a figure like above, here PQRS is a square of length 10 and the line VT is the perpendicular to the diameter of the semicircle PQ and it is also given that  $PU = 2$ , then find the length of VT?

5. Given  $2 < a < 5 < b < 8$  and if the average of 3, 6, 9, a, b is 6.2, then find the value of  $a + b$ ?

6. Given that an investment of a company in 1990 has increased by 15% in a span of 5 years i.e. by 1995 and the same investment increased by 30% in a span of 10 years i.e. by 2000.

Col A: The percentage increase from 1995 to 2000

Col B: 15%

7.

Given a square PQRS with side length 8 as above and 'Q', 'S' points are centers of the circles. Find the area of the shaded region?

8. If the below lines are plotted

$$x + y = 5 \text{ \&}$$

$$2x + 2y = 8$$

Col A: The shortest distance between the lines

Col B: 1

9. Given two circles that are concentric having radii 2, 5. If the tangent to the smaller circle intersects the bigger circle at 'S' and 'T', then find the length of 'ST'?

10. If  $a < 0$  &  $b > 0$ , then

Col A:  $a^{-7} * b^{-2}$

Col B:  $(a*b)^{-14}$

11. A Data interpretation question is given, with the data about "The Available number of rooms in Top 12 hotels in a city" and the questions asked were....

i. The Ratio of available rooms of 3 large hotels to the total rooms in a city.

ii. The median value of the number of rooms of the 12 hotels.

1)??

2)  $1-4*\sqrt{6}$

3)D

4)14

5)13

6)B

7)  $16-8\pi$

8)B

9)  $2*\sqrt{21}$

10)B

Correct me if i am wrong.....

1.12

2.  $7-4\sqrt{6}$

3.D

4.14.

5.??

6.B

7.64-8pi or 38.88

8.C

9.??

10.B

.....

Quant:

1. If  $g(x) = 3^{(x-1)}$ , then what is the value of  $[g(x+1)-g(x)]/2$ ?

2. There are two  similar  cylinders. One cylinder 'A' has  water filled to half of its height and is standing on its base. Other cylinder 'B' is lying down with water filled to two third of its height (i.e. its diameter).  
Col A: Volume of the Cylinder A  
Col B: Volume of the Cylinder B

3. Find the probability of getting an even number, when chosen between 1 to 10 numbers inclusive is?

4. If  $-1 < x < 0$ , then which of the following is greatest?

- A.  $x$
- B.  $2x$
- C.  $x^3$
- D.  $1/x$
- E.  $1/(x^2)$

5. If there is a series in which the first number  $A_1$  is 4 and  $A_{n+1} = (A_n - 3)^2$ , then what is the 25th number? (Here 1, n, n+1 are suffixes)

6. If the average of 6, x and y is 0, then what is the average of x and y?

7. If  $5 + 2x > 1$ , then

Col A: x  
Col B: -1.999

8. If n is a positive integer, then

Col A: Remainder when  $n^2 - n$  is divided by 2  
Col B: 0

9.If a hexagon is inscribed in a circle and all the sides are equal and angles are equal of the hexagon, then what is the perimeter of the hexagon in terms of the circle's diameter 'd'?

10.A certain game has multiple rounds, in each round a participant receives either 2 points or 4 points, the average points received by one particular participant for all the rounds is 2.2

Col A : 9 times the number of rounds in which the participant got 4 points Col B: the number of rounds in which the participant got 2 points

11.Two lists were given:

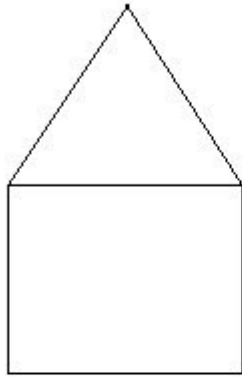
A: 12, 10, 30, 35 & 40

B: 30, 50, 20, 10 & 60

Col A:  Standard Deviation of A

Col B: [Standard Deviation](#) of B

12.



Given a polygon(an [equilateral triangle](#) above a square) as above with 5 sides, if the perimeter of this polygon is 30, then find the area of the polygon?

13.Given one triangle whose arms are 3 and 5. If its angles are less than 90, then find the range of other arm?

14.Find the greatest of all?

A.2/7

B.71/280

C.21/72

& so on....

15. Col A:  Standard deviation of 50, 60, 70, 80 & 90  
Col B:  Standard deviation of 50, 55, 70, 85 & 90.

16. Given a rectangle whose length 'l' and breadth 'b' is made, such that its length is increased by 15% and its breadth is been decreased by 15 %. Col A: Area of original rectangle  
Col B: Area of rectangle after change in dimensions

17. Given an equation of the form  $[x+3] \leq 5$  ( [ ] implies mod) and there were number lines given  
A. Number line saying x lies between -2 to 8  
B. Number line saying x lies between -2 to 2  
C. Number line saying x lies between -8 to 2  
D. Number line saying x lies between -8 to 8  
& so on....

18. Given X1, X2, X3 can do a job together in 4 hrs. If X1, X2 can do the same job in 6hrs, then how long would it take for X3 to do the job alone?

19. If in a team of 100, 70 liked cricket, 80 liked football and 5 liked neither, then how many people did like cricket but not football?

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Last edited by  admin on Tue Nov 11, 2008 9:35 am; edited 1 time in total

1.  $3^{(x-1)}$
2. ??
3.  $1/2$
4. C
5. 4
6. -3
7. D
8. C
9. 3d (Join the vertices of the hexagon to the center of the circle, then there will 6 equilateral triangles with each side measuring (d/2))
10. C
11. B
12. 35.8
13.  $>2$  &  $<8$
14. C
15. B
16. A
17. C
18. 12hrs
19. 15

Please verify the answers.



$$1-3^{(x-1)}$$

2-c( as they have jus asked the volume abd the  cylinders are similar so water content is immaterial..i tink 🤪)

$$3-1/2$$

$$4-e$$

$$5-4$$

$$6- -3$$

$$7-d$$

$$8-c$$

$$9-3d$$

$$10-??$$

$$11-a$$

$$12-36+\sqrt[3]{4(36)}\dots\text{so answer is }9(4+\sqrt[3]{3})$$

$$13-\text{between }3\text{ and }5\ldots(\text{nt sure})$$

$$14-c$$

$$15-a$$

$$16-a$$

$$17-??$$

$$18-12\text{hrs}$$

$$19-15$$

$$1-3^{(x-1)}$$

2-c( as they have jus asked the volume abd the  cylinders are  similar so water content is immaterial..i tink 🤪)

$$3-1/2$$

$$4-e$$

$$5-4$$

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$$7-d$$

$$8-c$$

$$9-3d$$

$$10-??$$

$$11-a$$

$$12-36+\sqrt[3]{4(36)}\dots\text{so answer is }9(4+\sqrt[3]{3})$$

$$13-\text{between }3\text{ and }5\ldots(\text{nt sure})$$

$$14-c$$

$$15-a$$

$$16-a$$

$$17-??$$

$$18-12\text{hrs}$$

$$19-15$$

$$1-3^{(x-1)}$$

2-c( as they have jus asked the volume and the  cylinders are  similar so water content is immaterial..i tink 🤪)

$$3-1/2$$

$$4-e$$

$$5-4$$

$$6- -3$$

$$7-d$$

$$8-c$$

$$9-3d$$

$$10-??$$

$$11-a$$

12- $36 + \sqrt{3/4(36)}$ ...so answer is  $9(4 + \sqrt{3})$   
13-between 3 and 5..(nt sure)  
14-c  
15-a  
16-a  
17-??  
18-12hrs  
19-15

12- it shud be 51.58...side of square and triangle is 6 not 5..perimeter is given as 30..and the '5' marked on the figure indicates no. of sides..  
there 5 5 sides to the figure  
so  $5x = 30$   
 $x = 6$   
the answer shud be 51.58 pls verify

Q 13 says that the triangle has all its angles  $< 90$ . So we have to take this constraint into account. if we take the side too small or too large then one of the angle will exceed 90. so the range will be

$$\sqrt{25-9} > x < \sqrt{25+9}$$

How?

Take the limiting cases.

Case 1

5 and 3 are perpendicular so the third side forms the hypotenuse so its maximum length is  $\sqrt{25+9}$

Case 2

3 and the third side are perpendicular and the side having length 5 is the hypotenuse so its minimum length of the third side is  $\sqrt{25-9}$

So the range is  $\sqrt{25-9} > x < \sqrt{25+9}$

If the question is correct then the answer will be C

If the question is


Col A: Volume water of the Cylinder A

Col B: Volume water of the Cylinder B

Then the answer is Col B.

How?

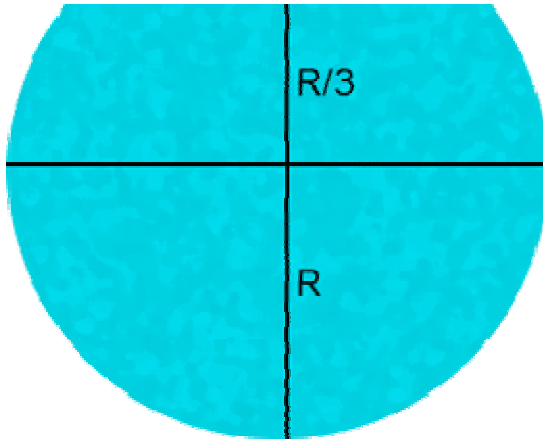
Easy way :

Since both are  similar [cylinders](#) both will have same volume and if the volume of water in cylinder B is same as cylinder A is same then it would also have occupied half of the height (i.e. diameter) of cylinder B but since it is occupying more than half the volume of water in Cylinder B is greater than that of cylinder A

Mathematical Way:

The volume of water in Cylinder A is  $\frac{1}{2} \pi R^2 H$

and the volume of water in cylinder B is area of the portion of the base of the cylinder in contact of water. see picture below



So the volume is  $\frac{1}{2} \pi R^2 \cdot H$  + area of the portion above the semicircle  $\cdot H$ . Since in Col B some extra volume is added to it, Col B is greater than Col A

i think ans for q 13 is 3-5.

given sides are 3 and 5 & condition is it is an acute triangle..

sum of any two sides of triangle are more than third side. to satisfy that  $x+3>5$ .....so.... $x>2$ ..this means lower limit is 3..

to find the maximum limit, let us consider it be the largest side in the triangle (corresponding to hypotenuse in right angle triangle)....since, it is acute triangle  $x^2 < 3^2+5^2$ ....which leaves almost  $x<6$ ...so, upper limit is 5....

so range is 3-5..

let me know if im wrong anywhere

1. If  $x < 0$ , then

Col A:  $1/x$

Col B:  $-1/x$

2. For a cylinder of radius 'r' and height 'h'

Col A: Total surface area

Col B: Curved surface area

3. Given two series of P & F, in which each upcoming term in P series is twice the preceding term and each upcoming term in F series is three times the preceding term. If  $P_1 = 5$ ,  $F_1 = 2$ , then for which value  $P_k > F_k$ .

(Here 1, k are suffixes)

4. Given that A & B can complete a work in 8 hours each and C can do it in 12 hours. In how much time will all of them finish the work if they work together?

5. There were 37 employees in a company. If the month July has more number of birthdays than any other month then what is the number of birthdays in July?(provided every month should have at least 3 birthdays)

Col A: Number of birthdays in July

Col B: 3

6. Given three points (2,4), (5,3) & (k,1). If these three points are collinear, then find value of k?

(Question is similar to this)

7. If 'X' machines work for 'Y' hours to produce 'Z' products, then how many hours will 'A' machines take to produce 'B' products

provided if the rate of two machines are same?(Values of X, Y, Z, A & B were given)?

8. Let  $S_1, S_2, S_3, \dots, S_n$  be a series such that,  $S_{n+1} = (1/2)S_n$ , then

Col A:  $S_6 (2^{14})$

Col B:  $S_{20}$

(Here 1, 2, 3, 6, 20, n & n+1 are suffixes)

9. If  $-2 < x < -1$ , then

Col A: x

Col B: 0

10. If  $|k+2| = |k-2|$  then,

Col A: k

Col B: 0

11. If  $-2 < x < -1$ , then

Col A:  $x^{-3}$

Col B:  $x^{-1}$

12. Given 'N' is a positive integer, such that when its multiplied with  $3/5$  and the resultant is divided with  $7/10$  then its equal to which of the following

a)  $N \cdot (6/7)$

b)  $N / (5/2)$

& so on...

13. Given a straight line equation in X,Y terms

Col A: The slope of the line if the intercepts of X,Y are equal

Col B: 0

14. If  $x \neq -1$ , then

Col A:  $1/(2x + 2)$

Col B:  $1/(x + 1)$

15. Given there are 800 doctors who says 'yes' to the drugs P, Q, R that they work effectively.

P drug....some 38%

Q drug....some 52%

R drug.....some 71%

now, how many doctors say "yes" to Q drug and "don't say yes" to the drug R?

A. 312

B. 910

& so on....

16. Given two straight lines  $x+y = 1$  &  $2x+2y = 8$ , then

Col A: The shortest distance between the two lines

Col B: 3

---

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1]B

2]A

3]4

4]3 hrs

5]A

6]11

7]??

8]C

9]B

10]C

11]A

12] $N^*(6/7)$

13]B

14]D

15]648 ( iguess)

16]B

let me know if i am wrong.... 😊😊

1. An Electricity poll has been extended from 3000 to 3799. If a marked place is between 3020 to 3039 then what is the probability that selected point is marked place?

A.0.025

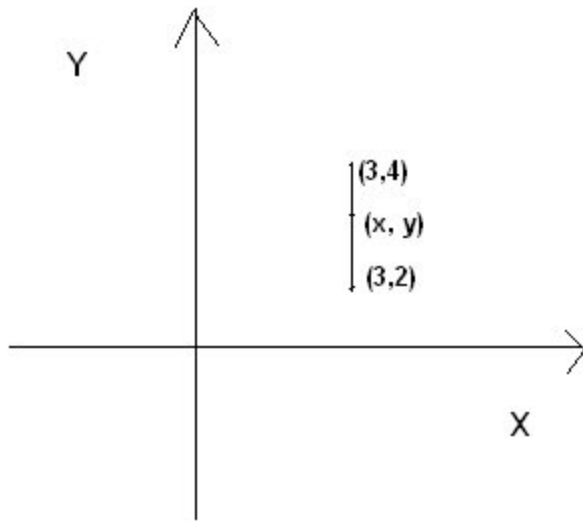
B.0.01

C.0.05

D.0.02

& so on...

2.



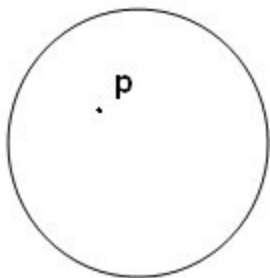
Find the value of  $4xy$ ?

3. What is the value of  $(8) (72)^{-5}$ ?

A.  $(72)^{-5/8}$

& other four options were given in the similar form

4.



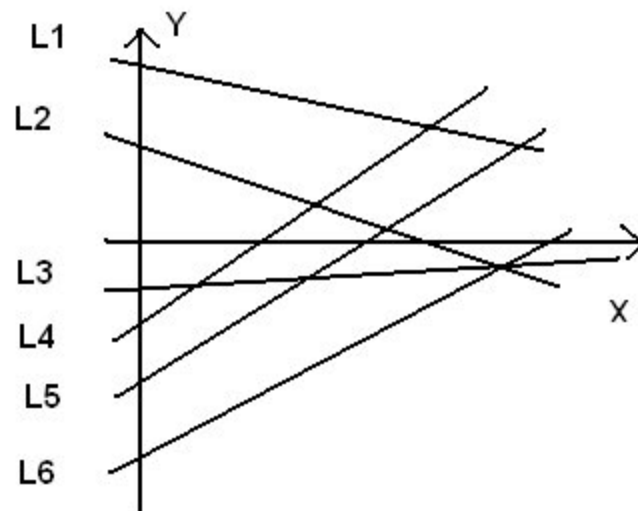
If the smallest distance from 'p' to any point on the circle is 5 and the largest distance from 'p' to any point on the circle is 11, then find the distance between centre and the point 'p'?

5. Which of the following options when multiplied by a number 'n' gives a result, which is same as to the result when number 'n' is multiplied by  $\frac{3}{5}$  and the resultant is divided by  $\frac{7}{10}$ ?  
(Question is similar to this)

A.  $\frac{21}{15}$

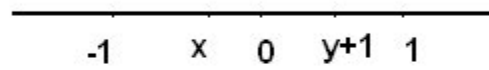
& similar four different fractions were given in the options

6.



How many of the above lines have negative slope?

7.



Col A:  $-xy$   
Col B:  $x + y$



8. If  $-3 < x < 0$ , then

Col A:  $1/x$

Col B:  $-3$

9. Given two line equations and asked to find y-intercept?

10. If  $2^{2n+1} - 2^{2n} = 2^{1000}$ , then the value of  $n$  is?

11. If the ratio of a triangle sides is given as 3:5:7, then what is the largest angle?

12. Find the distance between two lines with equations of the lines given  $x + y = 5$  and  $x + y = 4$ ?

13. Given a series  $S_1, S_2, S_3, S_4, \dots$  such that every term from  $S_3$ , is the addition of the previous two terms. If  $S_5 = 18$  &  $S_8 = 76$ , then what is the value of  $S_9$ ?

14. If  $0 < x < y < z$ , then

Col A:  $x/y$

Col B:  $y/z$

15. Col A: Radius of the circle having area  $36\pi$

Col B: Radius of the circle having area  $12\pi$

---

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1.0.02

2.  $x=3 \Rightarrow 4xy = 12y$  ( value of  $y$  shld be btw 2 n 4 )

3. need optins

4. 3

5. need options

6. 2 lines

7. A

8. D

10.  $n=500$

11. 84.

12.  $1/\sqrt{2}$

13. 123.

14. D

15. A

1.1 1) please explain

2) 36 if  $y = 3$

else 12y

3) ???

4) 3

5)  $6n/7$  ???

6) 2 lines

7) A (nice question!)

8-> D

9) should be easy!

10)  $n = 500$

11) 84

12)  $1/\sqrt{2}$

13) 123

$$\begin{aligned} s_5 &= s_7 - s_6 \\ &= s_9 - s_8 - (s_8 - s_7) \\ &= 2s_9 - 3s_8 \end{aligned}$$

$$\Rightarrow s_9 = (s_5 + 3s_8)/2$$

14) D

15)A

2. Quant:

1. If  $5 < x-3 < 9$ , then

Col A:  $x$

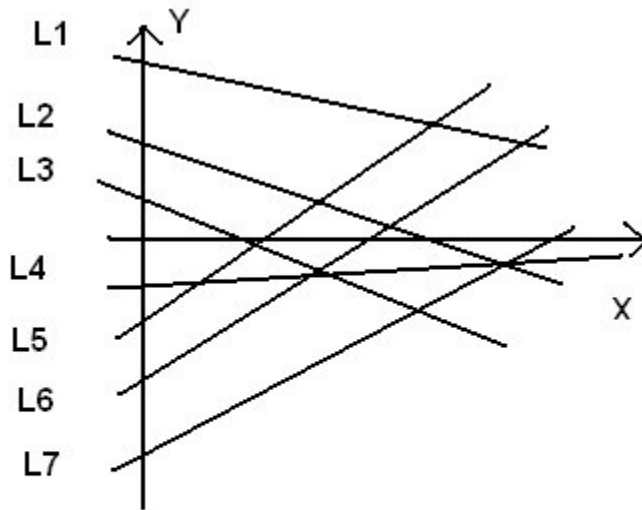
Col B: 8

2.If  $(2^{2n+1}) + (2^{2n}) = 1000$ , then

Col A: n

Col B: 500

3.



(@ all: this is the appropriate question given with seven lines)

A.2

B.3

C.4

D.5

& so on...

4.Given that a pump, pumps water from a well at the rate of 60gallons/min for duration of 1hour. If the pump rate is increased by 50% for next 2hours, then what is the total water pumped in this 3 hours duration?

5. If  $y = 2x + 9$  &  $x^2 = 4$ , then

Col A: x

Col B: y

6. Given Set A = 1, 2, 3, 4, 5 ...m & Set B = 1, 2, 3 ...n where 'n' is even and 'm' is odd.

Col A: Percentage of odd numbers in A

Col B: Percentage of even numbers in B

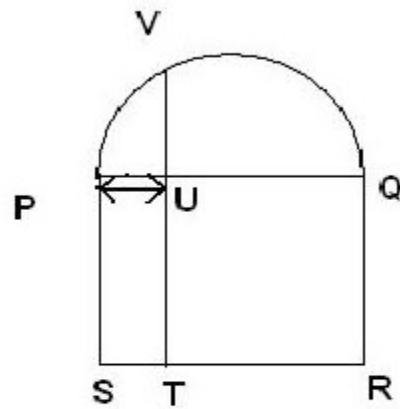
7. Given slope of a line as 2.5 and a point on the line as (20, 50).

Col A: y-intercept

Col B: -25

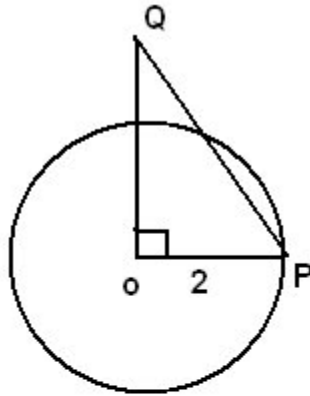
8. Given  $2 < a < 5 < b < 8$  and if the average of 3, 6, 9, a, b is 6.2, then find the value of  $a + b$ ?

9.



Given a figure like above, here PQRS is a square of length 10 and the line VT is the perpendicular to the diameter of the semicircle PQ and it is also given that  $PU = 2$ , then find the length of VT?

10.



Find the distance of QP?

11. Given that there was about 8500 distribution numbers. If the score of 26.7 was 35th percentile and 37.1 was 50th percentile, then how many distribution parameter numbers accounted for about 50 percentile of the distribution?

12. Given 'N' is a positive integer, such that when it is multiplied with  $\frac{3}{5}$  and the resultant is divided with  $\frac{7}{10}$  then its equal to which of the following

- A.  $N * (\frac{6}{7})$
- B.  $N / (\frac{5}{2})$

& so on...

13.If  $P = \text{Sum of even integers from 1 to 100}$  &  $Q = \text{Sum of odd integers from 1 to 100}$ , then what is the value of  $P - Q$ ?

- A.0
- B.99
- C.100
- D.101
- E.200

14.If x & y are integers, then

Col A:  $\sqrt{x} + \sqrt{y}$

Col B:  $\sqrt{x+y}$

15. Col A:  $(n + 30)^2 + (n - 30)^2$   
Col B:  $120n$

16. Given a quadrilateral with the four coordinates and asked to find the area of the quadrilateral?

---

Admin,  
drrajusgre.com1) A

2)  $n = 500$

3) A

2 lines 😊

4)  $(90 * 60 * 2 + 60 * 60)$  gallons

5) B (for  $x = +2$  and  $x = -2$ )

6) A

7) A

(intercept = 0)  
(USE  $y = mx + b$ )

8 ->  $a + b = 13$

9) 14

10) ???

11) Solve please!

12) A

13) 50

14) A (square both sides!)

15) ???

16) should be easy!

Quant:

1. If  $|2 - k| = |2 + k|$ , then

Col A:  $k$

Col B: 0

2. In a distribution of 8500 parameters, if 26.7 is 56 percentile & 37.1 is 78 percentile, then what is the

percentile of  $x$  ( $26.7 \leq x \leq 37$ ), that is closest in this range?

A. 1888

B. 4750

C. 6650

& so on....

3. If  $n < 0$ , then

Col A: Mean Deviation of 1, 2, 1

Col B: Mean Deviation of 1, 2,  $n$ .

4. If  $f(n, k) = n! / (k! * (n-k)!)$ , then

Col A:  $f(16, 3)$

Col B:  $f(16, 14)$

5. How many even integers have squares between 37 and 227?

6. In a class, there are 90 students. Average score of the students who passed is 84, and average score of the students who failed is 60. If the total average score of the 90 students is 80, then find the number of students who passed?

A. 15

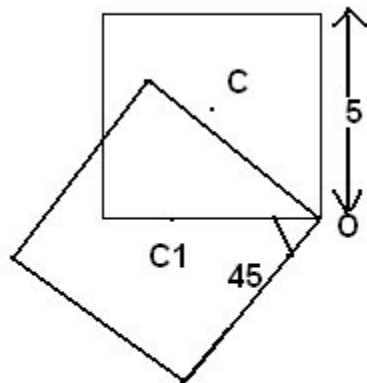
B. 24

C. 42

D. 76

& so on...

7.



Given a square with vertex 'O' and centre 'C', when rotated by 45degree with respect to vertex 'O' the centre is changed to 'C1'.

Col A: Distance between centre's 'C' & 'C1'

Col B:  $\{5\sqrt{2}\}/2$

8. Given, the length & breadth of a rectangle as 'l' and 'b', if the length of the rectangle is increased by 80% and breadth of the rectangle is increased by 20%, then

Col A: The percentage increase in area

Col B: 70%

9. If x and y are positive integers, then

Col A:  $(x^2 + y^2)/2$

Col B: xy

10. Given two line equations, x-intercept of equation1 is given and y-intercept of equation2 is given and asked to find the distance between two lines?

11. If  $y = 2x + 4$  &  $x^2 = 4$ , then

Col A: y

Col B: 6

12. Given A and B together can do a work in 8days, if 'C' can do a work in 12days then altogether A, B & C can do the same work in how many days?

13. Given following table

Data Percentile

16.8 43th percentile

17.1 49th percentile

17.3 52th percentile

17.8 55th percentile

18.2 60th percentile

Find the median of the above observation?

14. There were 37 employees in a company. If the month July has more number of birthdays than any other month then what is the number of birthdays in July?(provided every month should have at least 3 birthdays)

Col A: Number of birthdays in July

Col B: 3

---

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1. C
2. A ( guess , since it is close to 4250 )
3. B
4. A
5. 4
6. 75
7. B
8. A
9. D
10. equations....?
11. D
12. 24/5
13. b/w 17.1 & 17.3 ( guess )
14. A



Quant:

1. If  $0 < x < y < z$ , thenCol A:  $y/z$ Col B:  $x/y$ 

2. In 1990, the wages of the employees in  a company is 'x'. If from 1990-1995, the increment of wages is 15% and from 1990-2000 the increment is 30% then what will be the increment from 1995-2000?

3. If  $y(0.375) = 1$ , then  $(y^2 - 1) = ?$ 4.  The line joining the origin and which of the following points have greater slope?

A. (-1, 2)

B. (-3,-3)

C. (1, 4)

5. Given  $b = -8$  &  $(a+b)^2 = 36$ 

Col A: a

Col B: b

6. A certain amount is increased by 30% from 1976-1984 and increased by 82% from 1976-1986.

Col A: Find the percentage increase from 1984-1986

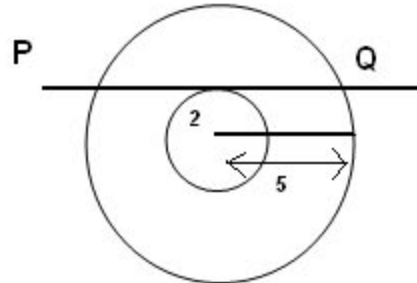
Col B: 50%7. If an integer  $n > 2$  takes the form  $k!$  and this satisfies if and only if the product of the 'n' numbers in that factorial should be less than or equal to k.Col A:  $n!/(n-1)!$ Col B:  $n!-(n-1)!/(n-2)!$ 8. The value of  $(5*4) + 2(5-8+3) = ?$ 

9. There are 10,000 numbers, ranging from 20 to 80. If 62 is 60th percentile, then

Col A: What percentile is 74

Col B: 70th percentile

10.



The radius of the smaller circle is 2 and radius of bigger circle is 5. If the tangent to the smaller circle intersects the bigger circle at 'P' and 'Q', then find the length of PR?

11. For a series  $S_1, S_2, S_3, \dots, S_n$ . If  $S_2 = 2$  &  $S_n = S_{n-1} + 2S_2$ , then find  $S_{18}$ ?

12. Given a line passing through a point, & given slope, find the x-intercept?

13. There was a circle, keeping diameter as base... an [isosceles triangle](#) was drawn, such that its other vertex was on the circumference of the semicircle, the area enclosed between triangle and semicircle was shaded.

Col A: The area of the triangle

Col B: The area of the shaded region.

14. [A company](#) XXX sells  $z$  products, and price per product is some  $y$ . If the cost of product drops by 20% then by [how much should](#) the sales increase to keep the revenue as before?

15. Given a [table](#)

X f

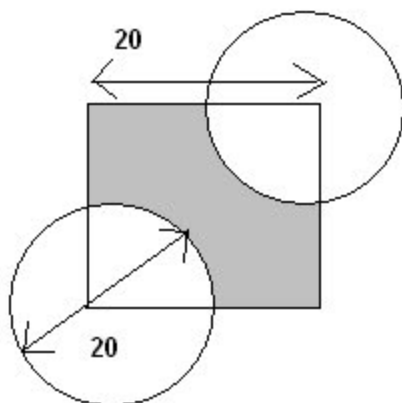
0 n

1 100-n

Col A: Value of  $x$  for mean to be greater than 5

Col B: 50

16.



Col A: Area of the shaded region  in the square

Col B: Area of the unshaded region [in the square](#)

17. If  $y = 2x+5$  &  $x^2 = 4$ , then

Col A:  $y$

Col B: 6

18. Two lines  $L_1$  and  $L_2$  are cut by a transversal at B and A respectively. E is a point on  $L_2$  such that angle  $BAE = 58$ . C is a point on  $L_1$  on the other side of transversal as E such that  $BC = CA$ .

Col A: Angle BCA

Col B: 60

Note: All angles are in degrees and figure was given.

19. Given x-intercept of a line = 2 & y-intercept = -1.

Col A: Slope of [the line](#)

Col B:  $-1/2$

20. Given  $y = ax + b$ , such that slope of line = 2 and x-intercept = 5.

Col A: y-intercept

Col B: -10

21. Given average of 90 students in a class is 80. If the average of students who passed is 84 and average of students who failed is 60, then

Col A: Number of passed students

Col B: 75

22. Average of five numbers 22, 19, 25, 28, 26 is increased by adding 4.5 to each number, then what is the median of increased set of numbers?

- A. 26.5
- B. 24.5
- C. 27.5
- D. 28.5
- E. 29.5

23. If  $N = 86^{233}$  &  $P = 81^{216}$ , then

Col A: unit digits in  $N+P$

Col B: unit digits in  $NP$

24. Given equation of parabola as  $y = x^2 + 3$ . If the point  $A = (2, k)$  is on the parabola and B is the point at which it cuts y-axis, then  $AB =$

- A. 2
- B. 3
- C.  $\sqrt{5}$
- D.  $\sqrt{5} + \sqrt{3}$
- E.  $\sqrt{5} - \sqrt{3}$

25. Given equation of line as  $2x + 3y = 1$ .

Col A: x-intercept

Col B:  $1/2$

26. If  $P_1, P_2$  pipes together can fill a tank in 8 hrs and  $P_3$  pipe can fill in 12 hrs, then time in which  $P_1, P_2$  &  $P_3$  together can fill tank?

27. Given  $A_1 = 1/2$  and  $A(n) = n/(n+1) \cdot A(n-1)$ . If  $A(k) = 1/15$ , then

Col A: k

Col B: 14

28. If  $a = 2^3 \cdot 3^4 \cdot 5^6$  &  $b = 11^3 \cdot 13^4 \cdot 17^6$ , then

Col A: number of positive factors of A

Col B: number of positive factors of B

29. The Number of integer values of 'x' satisfying  $|3x-2| < 8$  is .....

30. Given that  $2x-1>0$  &  $3x-2<0$ , then

Col A:  $x$

Col B:  $7/12$

31. The probability of a girl (some name) getting a line busy every time she calls is  $2/3$ . She makes one call on each of 4 consecutive days.

Col A: Probability of she getting  the line busy on each of the 4 days

Col B:  $1/4$

32. If ABCD is parallelogram with adjacent sides 10 and 16, then

Col A: Area of ABCD

Col B: 155

33. If  $s+t+st$  is an even integer and  $s$  and  $t$  are positive integers

Col A: Remainder when  $s$  is divided by 2

Col B: Remainder when  $t$  is divided by 2

34. If the area of triangle with vertices  $(k, k)$ ,  $(k+4s, k)$ ,  $(k, k+s)$  is 32, then the value of  $s$  is?

35. Number of bacteria in pot A doubles every 2 hr whereas in pot B it increases by 50% in 1 hr. The number of bacteria in pot A and pot B at 8 in the morning is 5000.

Col A: Number of bacteria in pot A at 2 in afternoon

Col B: Number of bacteria in pot B at 2 in afternoon.

36. Which of the following is closest to 2400?

Options were such that by inspection you can easily guess the answer.

Ans:  $51.4 \times 41$

37. If the angles of a triangle are  $2x$ ,  $x$  and  $x+20$ , then the greatest angle is

- A. 60
- B. 80
- C. 70
- D. 90
- E. 100.

38. If B is 1m to the east of A, C is 1m to the north of B, D is 1m to the east of C, E is 2m to the north of D, F is 1m to the east of E, then what is the shortest distance between A and F?

39. The rent for a room is calculated as follows. For the first 4 hrs ' $r$ ' dollars is charged. From there on 0.2r dollars is charged per hour.

	Col A: The rent charge for the first 9 hours
	Col B: $(9/5)*r$ .

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- 1 D
- 2 13%
- 3  $53/9$
- 4 C
- 5 A
- 6 20%
- 7 ?
- 8 20
- 9 ?
- 10  $2*\sqrt{21}$
- 11 68
- 12 easy
- 13 A
- 14 25%
- 15 ?
- 16 D
- 17 D
- 18 B
- 19 EASY
- 20
- 21 ?
- 23 A
- 24 ?
- 25 B
- 26  $24/5$
- 27 C
- 28 C
- 29 3
- 30 D
- 31 ?
- 32 ?
- 33 C
- 34 ?
- 35 B
- 36
- 37 B
- 38  $2*\sqrt{3}$
- 29 C

priya u r rite except for the few following

- 6]B ( since  $A=40\%$  )
- 7]A ( ques should be  $n \geq 2$  )
- 11]66
- 15]B
- 16]A ( if dia of other circle is also 20 )
- 19]A
- 20]C
- 21]C
- 22]29.5
- 24] $2*\sqrt{5}$
- 25]C

26]4.8

27]Expalin it please....😞

29]5

31]B

32]D

34]4

35]B

38]5

39]A

let me know in any case of issues.....😄

7]A ( ques should be  $n \geq 2$  ) .. explain pls just subs 2 u will get for other the condn fails..

21]C .. 😞explain

let pass = x

= >  $84x + 90(60-x) = 7200$  , on solving  $x=75$ ...

27] thanks for ur explanation ... i blundered my considerin  $A(n-1)$  in denominator.....now lucid...

29]5 .. 😞0,1,-1,2 the other is 3 (  $9-2=7 <$  😎

31]B ..[b]  $(2/3)*(2/3)*(2/3)*(2/3)=16/81 < (1/4)$

38]Sorry it is  $3*\sqrt{2}$ ..

1) D

2)  $(15/115) * 100 \% = 13\%$

3)  $55/9$

4) C

5) A (a has to be +ve)

6) B

Col A -> 40%

7) A ( ques should be  $n \geq 2$  )

😞20

9) ???

10)  $2*\sqrt{21}$

11) 66

12) should be easy!

13) ???

14) 25%

$z*y = z*0.8y*n$

n =

15) Please explain!

16) A (assuming other D = 20)

shaded =  $400 - 50*PI$

unshaded =  $50*PI$

17) D

1 🤨 B ???

Please explain!

- 19) A
- 20) C
- 21) C
- 22) E (29.5)
- 23) A
- 24)  $2\sqrt{5}$
- 25) C
- 26)  $24/5$

27) C

$$\begin{aligned}A(1) &= 1/2 \\A(2) &= 1/3 \\A(3) &= 1/4\end{aligned}$$

$$\Rightarrow A(14) = 1/15$$

$$k = 13$$

2 🤨 C  
29) 5

30) D (very careful)

x can vary between 50.x% and 65.x%

31) B

$$\text{Col A} \rightarrow 16/81$$

Because she has to get line busy on all 4 days!

32) D

Height can vary!

33) C  
(both s and t have to be even)

34) 4

$$\begin{aligned}AB &= 4s \\BC &= \sqrt{5s^2} \\CA &= s\end{aligned}$$

Now clearly BC is hypotenuse!  
Area =  $\frac{1}{2} \cdot AB \cdot CA$

$$\begin{aligned}4s^2 &= 64 \\s &= 4\end{aligned}$$

35) B (careful)

Pot A:  $x \dots 2x \ 4x \ 8x$   
Pot B:  $x \dots 1.5x \dots 2.25x$



At end of 2 hours Pot B is greater!

36) should be easy!

37) B

$x = 40$

$3^{\text{😬}} \sqrt{1^{\text{😬}}} = 3 * \sqrt{2(}$   
be careful!

39) A

Please explain 15 and 18th questions!

$$S_n = S_{n-1} + 2S_2$$

$$s_3 = s_2 + 2s_2 = 3s_2$$

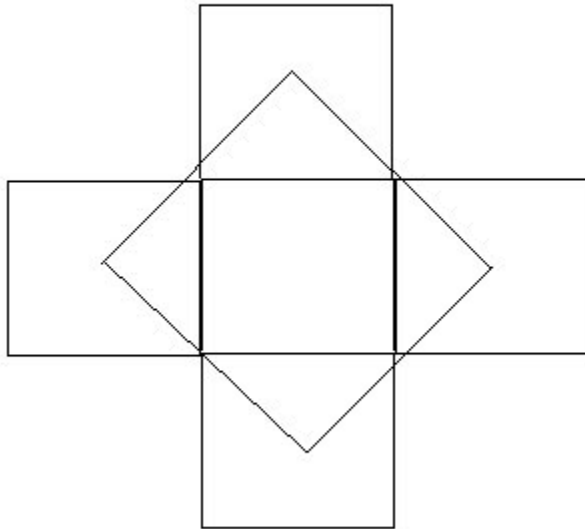
$$s_4 = s_3 + 2s_2 = 3s_2 + 2s_2 = 5s_2$$

go on the same way u finally arrive at  $33s_2 = 66$

Quant:

1. The value of  $(51! - 50!) / (50! - 49!)$  is.....

2.



Four identical squares are attached to a square of same dimensions at the four edges as above and centers of all the attached squares are joined forming a square, what percentage... more is the area of the square...such formed (joining the centers) compared to the given identical squares area?

3.How many even integers have squares between 37 and 621?

4.There is a list of 12 numbers, all are positive & even and their some is given as 50.

Col A: Range of these twelve numbers

Col B: 20

5.Given that, if  $x$  and  $y$  are decimals, then  $x+y$  when rounded to 100th decimal it is equal to  $x$ .

Col A:  $y$

Col B: 0.007

6. If  $x$  &  $y$  are both greater than 0, then

Col A:  $\sqrt{10x} * \sqrt{10y}$

Col B:  $10 * \sqrt{xy}$

7. Given that, if ' $x$ ' belongs to a set of prime numbers less than 10 and  $y$  belongs to a set of prime numbers greater than 10, then

Col A:  $(-1)^{x+y}$

Col B:  $(-1)^{xy}$

8. If 180 is the number of ways in which letters of a word is arranged, then which of the following words can be arranged in the same number of ways?

- A. CABBIE
- B. DEBBIE

9. In a distribution of 8500 parameters, if 26.7 is 56 percentile & 37.1 is 78 percentile, then what is the percentile of  $x$  ( $26.7 < x < 37$ ), that is closest in this range?

- A. 1888
- B. 4750
- C. 6650
- & so on....

10. Given  $2 < a < 4 < b < 10$ , if the average of 3, 6, 9, a, b is 6, then

- Col A:  $a-b$
- Col B: 4

11. Given 'N' is a positive integer, such that when it is multiplied with  $\frac{3}{5}$  and the resultant is divided with  $\frac{7}{10}$  then its equal to which of the following

- A.  $N * (\frac{6}{7})$
- B.  $N / (\frac{5}{2})$
- & so on...

12. Given two circles that are concentric having radii 2, 5. If the tangent to the smaller circle intersects the bigger circle at 'S' and 'T', then find the length of 'ST'?

13. If slope of first line is -2 and other line is  $\frac{1}{2}$ , then find the angle between the lines?

14. If  $0 < a < b < c$ , then

- Col A:  $b/a$
- Col B:  $c/b$

15. A triangle with three sides were given as  $a = 4$ ,  $b = 3$ ,  $c = 6$

- Col A: Angle between sides a and b
- Col B: 90

16. If  $n > 10000$ , then

- Col A: thousand's digit of  $n/8$
- Col B: 7

17. If a parallelogram has side 16 and 10, then

Col A: the area of parallelogram  
Col B: 155

18. If a probability of receiving a busy tone in a call is  $\frac{1}{3}$ , then  
Col A: Call made for time probability of not receiving a busy tone  
Col B:  $\frac{1}{4}$

19. Col A: The units digit in  $86^{34}$   
Col B: 6

20. If  $a^2 - 2 + (a - 1)6 + 9 = 0$ , then what is the value of 'a'?

21. In a total of 36 members, if 10 play chess, 16 play cricket and 20 play none of them, then what is the number of members who play any one of these games?

22. If  $-3 < x < 0$ , then  
Col A:  $\frac{1}{x}$   
Col B: -3

23. Given  $A + L = 130$ . If 'A' is the area of rectangle and 'L' is the length of the rectangle. Find the value of A? (Provided ....the breadth 'B' is given as 6)

---

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- 1](50\*50)/49
- 2]2:5
- 3]18
- 4]??
- 5]B
- 6]C
- 7]D
- 8]B
- 9]1888 or 4750 ...Still sonfused>>
- 10]B
- 11]A
- 12] $2\sqrt{21}$
- 13]90
- 14]D
- 15]A
- 16]D
- 17]D
- 18]A
- 19]C
- 20] $a = -\frac{1}{3}$
- 21]16 but not sure...
- 22]D

23]180/7

plz correct me if i am wrong...

ORKUT QUANT DATABASE (Till Oct 20th)

-----

1)  $(50/49)^2$

2) 100%

Area of new square =  $2*s*s$

3) 9

8 10 12 14 16 18 20 22 24

careful -> only even integers!

4) D

Assuming biggest number is 28 and rest are 2  
then Col A is greater.

If we assume bigger numbers than 2 then  
the above relation doesn't hold.

5) B

Obviously  $y < 0.004$

6) C

7) D

$(x=2, y=11)$

$(x=3, y=13)$



B -> DEBBIE

9) A -> 1888 ??? pradeey help!

10) B

Col A is always negative.

11) A ->  $N*(6/7)$

12)  $2*\sqrt{21}$

13) 90 degrees

Since product of perpendicular slopes is -1

$\tan(\text{angle}) = (m_2 - m_1) / (1 + m_1 * m_2)$

14) D

15) A -> Please explain.

16) D -> Please explain.

17) D

18) 🤨 A

Col A:  $\frac{2}{3}$

Col B:  $\frac{1}{4}$

19) C

20)  $a = -\frac{1}{3}$

21) 16 (sure!)

22) D

23)  $130\frac{6}{7}$

Please explain 15th and 16th 😊

Quant:

1. The value of  $(5*4) + 2(5-8+3) = ?$

2. Col A:  $(-36)^{49}$

Col B:  $36^{(-49)}$

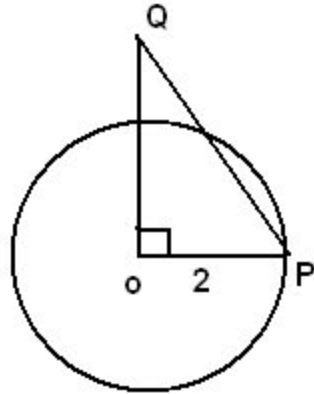
3. If  $x > 0$ , then

Col A:  $2^2 * \sqrt{x}$

Col B:  $4^2 * \sqrt{x^2}$

4. If  $t^2 = -3(2t + 3)$ , then the value of  $t$  is?

5.



If the area of the above circle is  $4\pi$  and area of the triangle is 3, then find the hypotenuse "PQ"?

6. A bar graph with number of students and marks obtained.

Marks No. of students

40 3

60 4

70 14

80 2

90 11

If the total number of students is 40, then

Col A: Median of the data

Col B: Average of the data

7. Given a table of Category and Number of students

Category No. of students

Elementary school 5

Junior school 4

High school 17

College 9

If total students = 35

Col A: probability that a student chosen randomly will not cross junior school

Col B: probability that a student chosen randomly is from college

8. Given x-intercept and y-intercept and asked to find the slope?

9. Given slope as 2.5 and a point on the line as (30, 50).

Col A: y-intercept

Col B: xxx (some value)

10. Given two points and asked to find the distance between the points.

11. If  $x \neq 1$ , then

Col A:  $1/(2x+2)$

Col B:  $2x+2$

12. Data Interpretation: Minimum wage per person is given for 5 countries.

First question was "percentage by which one countries wage per person was more than the other".

&

Second question: What is the per person wage of country X & O combined?

Country X - 564 & Country O - 705 --- (given in the data)

a. 500

b. 600

c. 635

d. 692

e. 705

13. If an integer  $n > 2$  takes the form  $k!$  and this satisfies if and only if the product of the 'n' numbers in that factorial should be less than or equal to k.

Col A:  $n!/(n-1)!$

Col B:  $n!-(n-1)!/(n-2)!$

---

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1]20

2]B

3]D

4]-3

5]SQRT(13)

6]D

7]C

8] - Co efficient of x / Co efficient of y

9]y intercept = -25

10]Distance formula

11]D

12]should be easy...

13]D

drop ur comments if i am wrong... 😊

1) 20

2) B

3) D (careful)

Col A: 1

Col B:  $4\sqrt{x}$

For  $x = 0.0000000000000001$  Col A is greater!

4) -3

5)  $\sqrt{13}$

6) B



Col A = 70 (17th and 18th value)  
Col B -> Quickly inspect and find that  
it will be greater than 70!  
DON'T CALCULATE!

7) C

Col A ->  $9/35$   
Col B ->  $9/35$

😊 Easy!

9) Easy!

Col A: -25

10) Easy via distance formula!

11) D

12) Easy!

13) A

Col A:  $2n-1$   
Col B:  $n!$   
For  $n > 2$  and integer Col A is greater!

Pradeey please clear up 6th, 8th (it should be inverse) and 13th question.

Quant:

1. If an integer  $n > 2$  takes the form  $k!$  And this satisfies if and only if the product of the 'n' numbers in that factorial should be less than or equal to k.

Col A:  $n!/(n-1)!$

Col B:  $n!-(n-1)!/(n-2)!$

2. Given a table

X f

0 n

1  $100-n$

Col A: Value of n for mean to be greater than 0.5

Col B: 50

3. If  $S_1 = 2$  and if  $S_n = S(n-1) * 1/2$  then

Col A:  $S_6$

Col B:  $2^{14}(S_{20})$

4. A bar graph with number of students and marks obtained.

Marks No. of students

40 3

60 4

70 14

80 8

90 11

If the total number of students is 40, then

Col A: Median of the data

Col B: Average of the data

(@ all: this is the appropriate question)

5. If 14% people have ovens and 27% have washing machines, then what is the range of the people having neither oven nor washing machines?

- A. 0-14%
- B. 27-41%
- C. 59-73%
- D. 73-86%

(Options were something like that)

6. For a line 'l', if x-intercept = y-intercept = 4, then

Col A: Slope of line 'l'

Col B: -1

7. If  $2 < a < 6 < b < 10$  & the arithmetic mean of 3, 6, 9, a, b is 6.2, then

Col A:  $6 - a$

Col B:  $b - 6$

8. If there is a list of some numbers, whose mean is 10.8 and standard deviation is '0', then

Col A: Range of that list

Col B: 0

9. If 'x' is 130% of 'y', then 'y' is what percentage of x?

10. If the total amount is calculated, by multiplying the number of goods and the price of each good, then if the number of goods is decreased by 20%, by what percentage must the price should increase to compensate the decrease?

11. If  $xy \neq 0$  and  $y^{-1} = 3x^{-1}$ , then which of the following is equivalent to it?

Options in terms of x & y were given

(To the given options, examiners answer:  $y = x/3$ )

12. If  $0 < x < y < z$ , then

Col A:  $x/y$

Col B:  $y/z$

13. If  $b = -8$  &  $(a+b)^2 = 36$ , then

Col A: a

Col B: 14

14. In 1990, the wages of the employees in a company is 'x'. If from 1990-1995, the increment of wages is 15% and from 1990-2000 the increment is 30% then

Col A: Percentage increment from 1995-2000

Col B: 15%

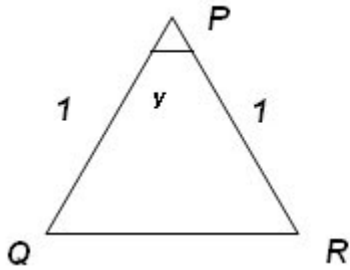
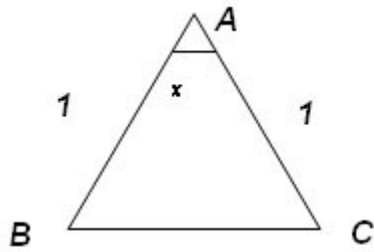
15. How many number of even squares are their between 60 and 625.

A. one

B. Two

& so on..

16.



If  $x < y$ , then

Col A: Area of the triangle ABC

Col B: Area of the triangle PQR

---

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1]D

2]B

3]C

4]B

5]I guess it is b/w 0-59 %

6]C

7]B

8]C

9]76%

10]25%

11] $Y = X/3$

12]D

13]D

14]B

15]18

16]C

Drop ur comments if i am wrong anywhere.... 🤔🤔

For Q16 Col B will be greater. Because here both triangles have the same height as the length of two sides are given but the third side which forms the base of the triangles is defined by the angles  $x$  and  $y$ . Now as we know the length of a side

opposit to an angle of a triangle is proportional to the size of tha angle i.e. is the angle increases the side increases and if the angle decreases the length decreases.

So here  $x < y$ .

So  $BC < QR$ .

So area of triangle ABC < Area of triangle PQR (As both have same heights)

So

Col A < Col B

Col B > Col A

Quant:

1. Given  $A + L = 130$ . If 'A' is the area of rectangle and 'L' is the length of the rectangle. Find the value of A? (Provided ....the breadth 'B' is given as 6).

2. Two lines 'L1' and 'L2' are cut by a transversal at 'B' and 'A' respectively. 'E' is a point on 'L2' such that angle BAE = 58. 'C' is a point on 'L1' on the other side of transversal as 'E' such that BC = CA.

Col A: Angle BCA

Col B: 60

Note: All angles are in degrees and figure was given.

3. Given  $y = ax + b$ , such that slope of line = 2 and x-intercept = 5.

Col A: y-intercept

Col B: -10

4. Given equation of parabola as  $y = x^2 + 3$ . If the point A = (2, k) is on the parabola and B is the point at which it cuts y-axis, then AB =

A. 2

B. 3

C.  $\sqrt{5}$

D.  $\sqrt{5} + \sqrt{3}$

E.  $\sqrt{5} - \sqrt{3}$

5. Given  $A_1 = 1/2$  and  $A(n) = n/(n+1) * A(n-1)$ . If  $A(k) = 1/15$ , then

Col A: k

Col B: 14

6. There were 37 employees in a company. If the month July has more number of birthdays than any other month then what is the number of birthdays in July? (provided every month should have at least 3 birthdays)

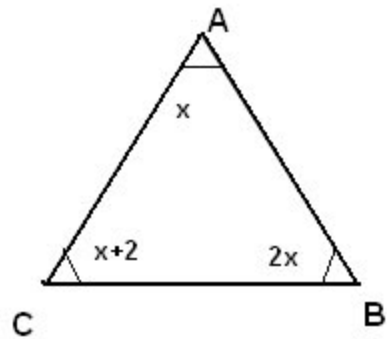
Col A: Number of birthdays in July

Col B: 3

7. In a group of men and women,  $1/3$  are men. If 2 women leave the group, then men will be  $2/5$  of the group. How many members are there in the group?

8. Given a series  $S_1, S_2, \dots, S_n$ . If  $S_2 = 2$  &  $S_n = S(n-1) + 2S_2$ , then find  $S_{18}$ ?

9.



What is the maximum angle?

10. Col A:  $(n + 30)^2 + (n - 30)^2$   
Col B:  $120n$

11. If  $x$  &  $y$  are positive integers, then  
Col A:  $x^2 + y^2$   
Col B:  $xy$

12. Given two lines & asked to find the distance between them.

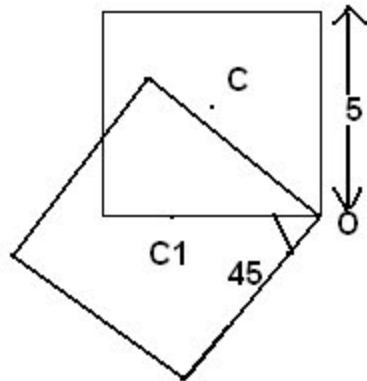
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- 1]780/7
- 2]A
- 3]C
- 4] $2\sqrt{5}$
- 5]C
- 6]A
- 7]12
- 8]66
- 9]89
- 10]A
- 11]D
- 12]should be easy....

Quant:

1. How many even numbers are there whose square falls in the range 37 to 621?
2. A line's y-intercept and x-intercept are given as -1 and 2 respectively. Find the slope?
- 3.



Given a square with vertex 'O' and centre 'C', when rotated by 45degree with respect to vertex 'O' the centre is changed to 'C1'.

Col A: Distance between centre's 'C' & 'C1'

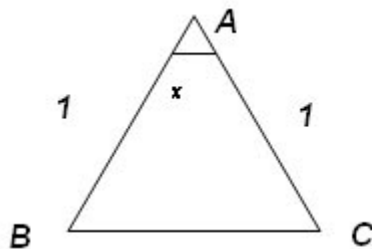
Col B:  $\{5\sqrt{2}\}/2$

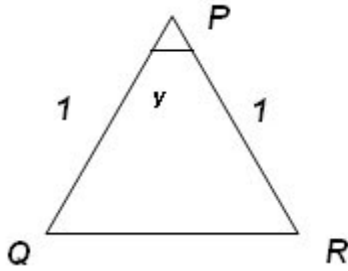
4. Given x is an integer such that  $x > 3$

Col A: number of even factors of  $2x$

Col B: number of odd factors of  $3x$

- 5.



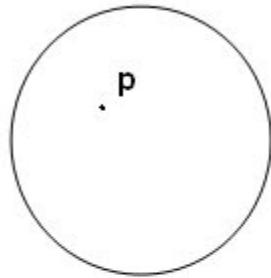


If  $x < y$ , then

Col A: Area of the triangle ABC

Col B: Area of the triangle PQR

6.



If the smallest distance from 'p' to any point on the circle is 5 and the largest distance from 'p' to any point on the circle is 11, then find the distance between centre and the point 'p'?

7. Two sets of data D1 & D2 are given as  $\{1, 2, x\}$  and  $\{1, 2, 1\}$ ,  $x$  is an integer which is not equal to 1.

Col A: Standard Deviation of D1

Col B: Standard Deviation of D2

8. A shopkeeper had  $T$  toys. He sold 60 toys on the first day at \$0.40. If he wanted to sell the remaining toys on the second day and earn the same total as the previous day, then at what price should he sell them each?

9. Given that, when ' $N$ ' is divided by 7, it leaves a remainder of 4. If  $N^2 + 5$  is divided by 7, then the remainder is...??

\_\_\_\_\_

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- 1) 18
- 2) Should be easy! 😊
- 3) B
- 4) D [not sure 😞!]
- 5) C
- 6) 3
- 7) 😞
- 8) 😞 (T-60)/150 [This too not sure!]
- 9) 😞

pls let me know if im correct or not ! 🤖  
could anyone solve 7 and 9 ?

Quant:

1. The probability of a girl getting a line busy every time when she calls is  $1/3$  and if she makes one call on each of 4 consecutive days, then

Col A: Probability of getting the line busy on each of the 4 days

Col B:  $1/4$

2. For a rectangle, if the breadth is 9 &  $A(\text{area}) + L(\text{length}) = 130$ , then the area of the rectangle 'A' is?

3. Given a Parallelogram with sides of 10 and 16.

Col A: Area of parallelogram

Col B: 160

4. If  $1/x + 1/y = 3$ , then

Col A:  $3xy$

Col B:  $x+y$

5. If  $x, y > 0$ , then

Col A:  $\sqrt{xy}$

Col B:  $\sqrt{x+y}$

6. If  $2 < a < 6 < b < 10$  & the arithmetic mean of 3, 6, 9, a, b is 6.2, then

Col A:  $6 - a$

Col B:  $b - 6$

7. If the total amount is calculated, by multiplying the number of goods and the price of each good, then if the number of goods is decreased by 20 percent, then by what percentage must the price should increase to compensate the decrease?

8. Col A: The remainder when k is divided by 7



Col B: The remainder when  $2k$  is divisible by 7

9. If 'x' is 130percent of 'y', then 'y' is what percentage of x?

10. If the point  $P(x, y)$  is equidistant from points  $(3, 1)$  and  $(3, 4)$ , then

Col A: The x-coordinate of P

Col B: 2

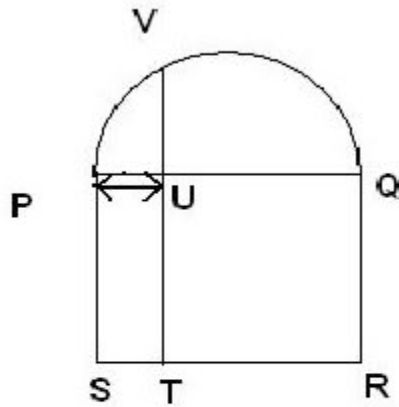
11. Given that, some 'x' shares were there and price per share was  $t\$$ . If  $x > 20$  and the first 20 shares were sold at price  $(t+1)\$$  while remaining at  $t+4$ , then

Col A: The net profit

Col B:  $(t+40)$

(Question is similar to this)

12.



Given a figure like above, here PQRS is a square of length 10 and the line VT is the perpendicular to the diameter of the semicircle PQ and it is also given that  $PU = 2$ , then find the length of VT?

13. If there is a list of some numbers, whose mean is 10.8 and standard deviation is '0', then

Col A: Range of that list

Col B: 0

14. If  $|2 - k| = |2 + k|$ , then

Col A: k

Col B: 0

15. Given Set A = 1, 2, 3, 4, 5 ...m & Set B = 1, 2, 3 ...n where 'n' is odd and 'm' is even

Col A: Percentage of odd numbers in A  
Col B: Percentage of even numbers in B

16. In a distribution of 8500 parameters, if 26.7 is 56 percentile & 37.1 is 78 percentile, then what is the percentile of  $x$  ( $26.7 \leq x \leq 37.1$ ), that is closest in this range?

- A. 1888
- B. 4500
- C. 3500
- D. 6650

17. If 14percent people have ovens and 27percent have washing machines, then what is the range of the people having neither oven nor washing machines?

- A. 0-14percent
- B. 27-41percent
- C. 59-73percent
- D. 73-86percent

18. Two lines  $L_1$  and  $L_2$  are cut by a transversal at B and A respectively. E is a point on  $L_2$  such that angle BAE = 58. C is a point on  $L_1$  on the other side of transversal as E such that  $BC = CA$ .

Col A: Angle BCA  
Col B: 60

---

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#### ANSWERS

- 1)B
- 2)119
- 3)D
- 4)C
- 5)D
- 6)B
- 7)25%
- 8)🤔D
- 9)77%
- 10)D
- 11)D
- 12)  $VT=14$
- 13)C
- 14)C
- 15)A
- 16)A
- 17)C
- 18)🤔A

Quant:

1. If  $\frac{3}{5} = \frac{x}{y}$

Col A:  $X - 3$

Col B:  $Y - 5$

2. If the letters of the word A, F, T, E, R are permuted and arranged in a dictionary form like after, then for some  $(n > 2)$  how many other possible ways are there?

A. 119

B. 117

C. 88

& so on....

3. Given  $y = ax + b$  and if x-intercept is 5 and slope = 2

Col A: x-intercept

Col B: -10

4. If  $x$  is negative integer, then

Col A:  $(-x)^{(3 \cdot x)}$

Col B:  $(-3 \cdot x)^{(x)}$

5. In how many ways can 5 prizes, each having 1st, 2nd, 3rd positions can be given to 3 boys?

6. Given three points  $(2,4)$ ,  $(5,3)$  &  $(k,1)$ . If these three points are collinear, then find value of  $k$ ?

7. There were 37 employees in a company. If the month July has more number of birthdays than any other month then what is the number of birthdays in July? (Provided every month should have at least 3 birthdays)

Col A: Number of birthdays in July

Col B: 3

8. Given two parallel lines 'L1' and 'L2' which are cut by a transversal at 'B' and 'A' respectively. 'E' is a point on 'L2' such that angle BAE = 58. 'C' is a point on 'L1' on the other side of transversal as 'E' such that  $BC = CA$ .

Col A: Angle BCA

Col B: 60

Note: All angles are in degrees and figure was given.

9. Given a square with vertex 'O' and centre 'C', when rotated by 45 degree with respect to vertex 'O' the centre is changed to 'C1'.

Col A: Distance between centre's 'C' & 'C1'

Col B:  $\{5\sqrt{2}\}/2$

10. Given following table

Data Percentile

16.8 43th percentile

17.1 49th percentile

17.3 52th percentile

17.8 55th percentile

18.2 60th percentile

Find the median of the above observation?

---

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1)D

2)A

3)C

4)

5)30

6)11

7)A

🤔A

9)B

10)17.3

$$5 \cdot 4 \cdot 3 \cdot 2 = 120$$

$$\text{i.e., } 120 - 1 = 119 (\text{given } X > 2)$$

Quant:

1. If  $x^2 + 5x - 4 = 0$ , then sum of all possible values of  $x$  is

A. -5

B. -1

C. 0

D. 1

E. 5

2. If  $x + y = 5$  &  $2x + 2y = 8$ , then

Col A: The smallest possible distance between the lines

Col B: 1

3. Given a series  $3 + 3^2 + 3^3 + \dots + 3^k$ . What is the value of 'k' at which the summation will be divisible by 6?

A. 15

B. 18

C. 21

D. 28

E. 53

(Options were something like that)

4. If  $x^2 + 3x - r = 0$ ,  $r$  is a positive integer and if  $x_1, x_2$  are possible solutions to the equation, then

Col A:  $x_1 * x_2$

Col B:  $-r$

5. If  $3x + 5y = 12$ , then which of the following statements are true

1. x-intercept is positive

2. Slope is negative

3. At any point on the line, at least one coordinate is positive.

A. Statement 1

B. Statement 1 & 2

C. Statement 2

& so on.....

6. Two frequency distribution graphs are given, both are following same pattern, asked for the range, mean and standard deviation that are same for both.

7. If  $(x-5)(2x+1) - (x-5)(x+7) = 0$ , then the smallest possible value for  $x$  is....?

8. If 'p' is a point located at equal distance from (3, 0) and (3, 5) then

Col A: x-coordinate

Col B: 3

9. If  $n > 20$ ,  $n$  shares are bought at a value of  $t$  (each share cost). In June, if a person sold  $n-20$  shares at  $t+2$  value each and rest of the shares for  $t+3$ , then

Col A: Total value of the shares sold – Initial value

Col B:  $40+n$

10. In 1976, the value of '\$' is 30% more than in 1972. In 1980, the value is 82% than that in 1972, then

Col A: Percentage increase in '\$' value from 1976 to 1980

Col B: 52%

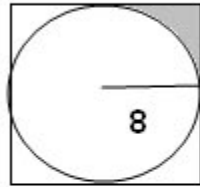
11. Col A:  $3x^1 * 3x^{-1}$

Col B:  $5x^1 * 5x^{-1}$

12. If  $x^4 + 5x^2 - 2 = 0$ , then which of the following options given cannot satisfies the condition?

(Some numbers were given as options)

13.



If the radius of the circle above is 8, then find the area of the shaded region?

14. There are 40 students in the class and the marks obtained by them are like 50, 60, 70, 80 & 90.

Col A: Median of the 40 students

Col B: Mean of the 40 students.

---

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Quant:

1. If the area of  rectangle 'S' is twice that of the rectangle 'T', then

Col A: The side of  rectangle S

Col B: The diagonal side of  rectangle T

2. If  $n > 10,000$ , then which of the following is the  closest to 3?

A.  $1/(3^n)$

B.  $3 + 1/3^n$

C.  $n/(3^n)$

& so on....

3. If  $2 < a < 6 < b < 10$  & the arithmetic mean of 3, 6, 9, a, b is 6.2, then

Col A:  $6 - a$

Col B:  $b - 6$

4. A line passes through a point  $(p, r)$  and its slope is 'p'. If  $pr < 0$ , then

Col A: The x-intercept of  the line

Col B: 0

5. A ball is dropped from 6metres. If it bounces a height of 90% of previous height, then after 5 bounces to how much height will it bounce?

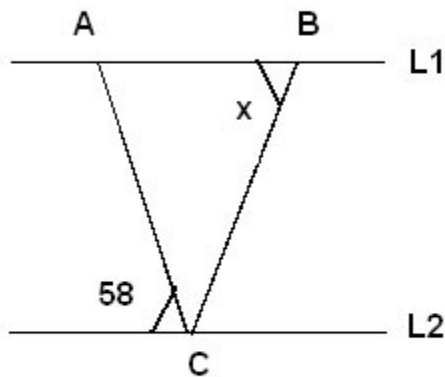
6. Given two  points (3, 0) & (3, 3) in the  coordinate [system](#). If these two [points](#) are equidistant from a point  $(x, y)$ , then

Col A: x

Col B: 3

7. Given an equation of a line and asked to find the x-intercept of that?

8.



Given that L1 is parallel to L2. If  $AB = BC$ , then

Col A: x

Col B: 60

9. Given 'x' is an integer. If  $x^2 - 10 < 0$ , then how many such values of 'x' satisfies the given condition?

- A. one
- B. Two
- C. Three
- & so on...

10. Col A:  Standard Deviation of numbers having an average 60  
Col B: Standard Deviation of numbers having an average 65

11. Given  $n > 10,000$ ;

Col A: The unit digit value of 'n' when divided by 8

Col B: 7

12. Given a set of numbers 19, 22, 25, 26 & 28. When each number is added by 'k', then the sum of  the numbers would be 142.5. Find the median of the numbers?

13. For a  rectangle, if the breadth is 8 &  $A(\text{area}) + L(\text{length}) = 130$ , then the area of the  rectangle 'A' is?

14. If  $0 < x < y < z$ , then

Col A:  $x/y$

Col B:  $y/z$

15. Given a series  $3 + 3^2 + 3^3 + \dots + 3^k$ . What is the value of 'k' at which the summation will be divisible by 6?

- A. 15
- B. 18
- C. 21
- D. 28
- E. 53

16. Given that, when 'N' is divided by 7, it leaves a remainder of 4.

If  $N^2 + 5$  is divided by 7, then the remainder is?

17. In a distribution of 8500 parameters, if 26.7 is 56 percentile & 37.1 is 78 percentile, then what is the percentile of x ( $26.7 \leq x \leq 37$ ), that is closest in this range?



- A. 1888
- B. 4500
- C. 3500
- D. 6650

18. The probability of a person getting a line busy every time when she calls is  $\frac{1}{3}$  and if she makes one call on each of 4 consecutive days, then

Col A: Probability of getting the line busy on each of the 4 days

Col B:  $\frac{1}{4}$

---

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- 1) D
- 2) ??
- 3) B
- 4) A
- 5) 3.54
- 6) C
- 7) Need more data
- 8) 😊 A (64)
- 9) 7 values
- 10) D
- 11) D
- 12) 29.5
- 13) 115.5
- 14) D
- 15) ??
- 16) 0
- 17) I think it is D
- 18) 😊 B

Please verify, I am also be wrong.

4) The answer is D, not A but i am not 100% sure

6) It is given the two  points are equidistant from point(x,y), so use mid-point formula  
 $\{(3+3)/2, (0+3)/2\} \Rightarrow (3, 1.5)$

- 2) B
- 8) 😊 A (61)
- 14) B

for the 6th one i thnk its B charanj wat u've done found the mid point between two

points

but according to the coordinate system both hav same x coord  
they differ only at Y

3) B

😊 A (61)

14) B

for the 6th one i think its B charanj wat u've done found the mid point between two

points

but according to the  coordinate system both hav same x coord they differ only at Y.

Hi,

14) It is D. Check for values (1,2,3) & (2,10,1) 😊

😊 How did u get 61??  $(180 - (58 \times 2))$

6) I think it is D, considering your explanation point (x,y) can be on  the line joining (3,0) (3,3) or it can be to the left or right. So value of x varies accordingly.

2) Can u pls explain how u arrived at the solution?

Thnx!

14) charan for the values which u hav said

$0 < 1 < 2 < 3$

col A)  $1/2 = 0.5$

col B)  $2/3 = 0.6$

col B is greater

$0 < 2 < 10 < 18$

col A)  $2/10 = 0.2$

col B)  $10/18 = 0.5$

stil it col B which is greater

6) i'm also not sure abt 6th one i think any point from wer they must be equidistant should definety be below their X coord 3 so i thought it was B but i'm not sure.

2. If  $n > 10,000$ , then which of the following is the  closest to 3?

A.  $1/(3^n)$

B.  $3 + 1/3^n$

C.  $n/(3^n)$

& so on....

ans- for  $n > 10000$  A. it is definety 0.0000 some value

B. it is  $3 + 0.0000$  some value

C. its denominator is greater than numerator so this also must be 0.0000 so there's only one possible solutn ie B.

Hello all...

For 14th question,

if consider  $0 < 1/5 < 1/4 < 1/2$

So answer should be "D".

---

Regards,  
Himanshu

Hello all...

For 14th question,

if consider  $0 < 1/5 < 1/4 < 1/2$

So answer should be "D".

---

Regards,  
Himanshu

1. A triangle is given with sides  $x$ ,  $y$  &  $z$ . If  $z = 1/4(\text{perimeter})$  &  $x + y = 12$  then find perimeter?
2. If  $(n-2)(n-3) = 0$ , then  
Col A:  $-2n-1$   
Col B:  $2n+1$
3.  $1^{-3} + 2^{-2} + 3^{-1} = ?$
4.  $(1+\sqrt{2})(1-\sqrt{5})(1-\sqrt{2})(1+\sqrt{5}) = ?$
5. If  $y = -(x-1)$  then find the value of  $1/3|y+x|$ ?
6. If the length and breadth of the rectangle is 6 & 4, then what is the area of the shaded region? ( for diagram refer orkut quant DB)
7. What is the length of the third side? ( for diagram refer orkut quant DB)  
Col A: AC  
Col B: 10
8. Col A:  $3^{50}$   
Col B:  $6^{25}$

ANSWERS:

1. 16
2. Col B
3.  $19/12$
4. 4
5.  $1/3$
6. ???
7. D
8. Col A

If the length and breadth of the rectangle is 6 & 4, then what is the area of the shaded region?

Area of the rectangle =  $6 \times 4 = 24$

The Diameter of the circle is 4. So radius= 2

Area of the circle=  $4\pi$

Area of the shaded region= $24 - 4\pi = 11$  (Approx)

1. If  $x, y > 0$  &  $x^{-1} = 2 / (1+y)$ , then

Col A:  $x$

Col B:  $y/2$

2. Given a sequence 2,  $x$ , 7,..... which contains a constant such that the number is obtained by adding the previous number and the constant. Find  $x$ ?

A.  $5/2$

B. 5

C.  $9/2$

D. -5

3. If  $a_1 = 2$  and  $a_{n+1} = (a_n - 1)^2$  where  $n$  and  $n+1$  are suffixes..find  $a_{17}$ ..

a) 1

b) -2

c) 4

d) 0

e) -1

4. The product of 1 to  $n$ , inclusive is divisible by 990

Col A:  $n$

Col B: 9

5. Given a bag which contains Red and black marbles. Red marbles are more than black marble and Red marbles are 5 times black marbles. If we pick 5 marbles randomly, without replacement, then

Col A: Red marbles

Col B: Black marbles

6. Given that 500 people are asked 2 questions and both questions can be answered either yes or no. If 410 said yes for first and 220 said yes for second, then how many answered both?

7. Given a figure in which there was a rectangle inscribed inside another rectangle. The internal rectangle was slanting and one of its side bisected one side of the outer rectangle and was asked find the area of internal rectangle?

8. If  $a < b < c$  and if they are the angles of the triangle, then

Col A:  $a+b$



Col B:  $c$

9. For a party, 2 types of dishes are to be selected. For the first type of dish 2 are to be selected from 4 and for second type of dish 4 are to be selected from 5. In how many ways can these both (1st & 2nd) type of dishes selected?

10. If  $(x + 1/x) / (1 + 1/x) = 99$  then what is the value of  $(x + 1/x) / (1 - 1/x) = ?$

11. Col A: 20% of  $(1/16)$   
Col B: 25% of 0.05

12. If  $0 < x < 1$   
Col A:  $1/x$   
Col B:  $1/x^2$

1. d
2. c
3. a
4. a
5. c
6. 130
7. 
8. d
9. 
10. i think  $2/97$  is it correct
11. c
12. A

i think the first answer is (a) and fifth answer is (d).....

1) if u solve the equation given you get  $x = y/2 + 1/2$

5) assume there are 5 black balls and 25 red balls

if u remove 5 red balls....even then red balls will be more....

now assume 1 black ball and  $5*1=5$  red balls remove all 5 red balls so no of black balls will be greater.....

so answer is d

ok the 1st a but the 5 one c correct because

if u 1 black so there will 5 red ball

totally 6

If we pick 5 marbles randomly, without replacement, then

pro of red =  $5/6 * 4/5 * 3/4 * 2/3 * 1/2 = 1/6$

pro of black =  $1/6$  because there is only 1 ball

1. A circle with centre 'O' has a diameter d. If AB is any chord, then  
Col A: perimeter of triangle OAB  
Col B:  $5d/3$

2. If x and y are positive even numbers, then  
Col A:  $(-1)^{(x+y)/2}$   
Col B:  $(-1)^{(x+y)}$

3. How many distinct five digit numbers are there... that begin and end with odd numbers?

4. Given a figure of rectangle with base 15 and height 12, reduce one of the heights to 8 units... now join the

shorter height to the longer height.. like a staircase with different heights at each step... the question was to find the length of the staircase?

(Question is similar to this)

5. Col A:  $199!/198!$

Col B:  $(199!-198!)/197!$

6 A person has 10 pairs of sox and each are differently colored. If a person picks one pair of sox simultaneously, what is the probability that it is of same colored pair?

A.  $1/5$

B.  $1/10$

C.  $1/9$

D.  $2/9$

E. xxx(some value)

7. There is a parabola whose equation is  $y = 2x - x^2$ . The parabola was drawn such that, the curvy part was in the first quadrant... now (s, t) is any point between positive x-axis and the curve.

Col A: t

Col B:  $2s-s^2$

8. Mary buys a product at 80% of its value, she buys another product at 70% of its value. If two products are brought together

Col A: What is the total percent of discount

Col B: 75%

9. One bucket with a capacity of V was  $1/3$ rd full.. & another bucket with a capacity of W was  $1/4$ th full. With the same liquid..now, if the two are emptied into another bucket with capacity of x, what fraction of x is full?

(Question is similar to this)

10. If a clock shows exactly 4 '0' clock right now, then what will it show exactly 1195 hours later?

11. Given a sequence  $a_1, a_2, \dots, a_n$ . If  $a_1 = 25$  & in the sequence if every number is '-2' times the preceding number, then

Col A:  $a_{100}$

Col B: -10,000

12. If 'f' is function such that  $f(x) = \text{sum of prime factors of } x$  (even repeating prime factors)

Col A:  $f(256)$

Col B:  $f(210)$

13. If  $f(n) = (n(n+1))/2$  and 'm' is an integer  $>0$  then

Col A:  $(-1)^{f(m+1)}$

Col B:  $(-1)^{f(m+2)}$

14. A person has 5 pairs of sox and each are differently colored. If a person picks one pair of sox simultaneously, what is the probability that it is a same colored pair?

15. If  $x(x+4)(2x-15)(x+3) = 0$ , then find the product of the least value and the greatest value of x?

16. The probability of A hitting the target is  $2/3$ . And probability of B hitting the same target is  $4/7$ . So, what is the probability that neither of them will hit the target?

try to answer them as soon as possible....

The answers are :

1.D

2.C

3.15120

4.?

5.B

6.1/19

- 7.?
- 8.?
- 9.  $(3W+4V)/12x$
- 10. 11AM
- 11. B
- 12. B
- 13. C
- 14.  $1/9$
- 15. -30
- 16.  $1/7$

Please correct me if iam wrong anywhere

I think in 2 ques Ans is D...

If we select  $x=2$  &  $y=2$  then quantities are equal

If we select  $x=2$  &  $y=4$  then B is Greater so I think D will be the ans..Pls reply///

Hi manali,

the answer what i gave is wrong..i dint read the question properly

here's the answer...the 1st digit and the last digit can be filled in 5 and 4 ways respectively(as per the given condition).the 2nd, 3rd and 4th digits of the number can be filled in 8,7,6 ways(as distinct 5 digit numbers are required).

Therefore the answer is  $5*8*7*6*4=6720$

The answer for th 8th question D

Please let me know in case of any Issues

For the 15th one, the values we get for x are 0,-3,-4, and  $15/2$ .

We require the product of the least and the greatest value of x.

least value=-4

greatest value= $15/2$

the product is -30.

Please correct me if iam wrong

for the 13th one,

$$\begin{aligned}f(m+1) &= (m+1)(m+2)/2 \\ &= (m^2+3m+2)/2\end{aligned}$$

$$\begin{aligned}f(m+2) &= (m+2)(m+3)/2 \\ &= (m^2+5m+6)/2\end{aligned}$$

Given  $m>0$  and m is an integer,  
put  $m=1$ ,  $f(m+1)=6$ ,  $f(m+2)=12$   
put  $m=2$ ,  $f(m+1)=12$ ,  $f(m+2)=20$

for whatever value we give for  $m$ ,  $f(m+1)$  and  $f(m+2)$  will be even

so  $(-1)^{f(m+1)}$  will be equal to  $(-1)^{f(m+2)}$

Please correct me if I am wrong

for the 13th one,

$$\begin{aligned}f(m+1) &= (m+1)(m+2)/2 \\ &= (m^2 + 3m + 2)/2\end{aligned}$$

$$\begin{aligned}f(m+2) &= (m+2)(m+3)/2 \\ &= (m^2 + 5m + 6)/2\end{aligned}$$

Given  $m > 0$  and  $m$  is an integer,  
put  $m=1$ ,  $f(m+1)=6$ ,  $f(m+2)=12$

SEE UR WRONG HERE...

$m=1$  we get

$$f(m+1) = 3$$

$$f(m+2) = 6;$$

u forgot to div i guess

[/b]

1. If  $n$  is a odd positive integer, then

Col A:  $(-2)^{((n+1)/2)}$

Col B:  $(-2)^{((n-1)/2)}$

2.

Given equation of the parabola as  $y = 2x - x^2$ .

Col A:  $t$

Col B:  $2s - s^2$

3. A person has 5 pairs of socks and each are differently colored. If a person picks one pair of socks simultaneously, what is the probability that it is of same colored pair?

4. How many different 5 digit numbers can be formed, such that 1st and last place should be filled up with odd number.

A. 25000

B. 20000

so on....

5. If  $(4/7) = (4+s)/(7+t)$ , then

Col A:  $s$

Col B:  $(4t/7)$

6. If  $x(x-15/7)(x+4)(x+3)=0$ , then what is the product of maximum and minimum value of  $x$ ?

7. If a square of  $125\text{cm}^3$  is fit into a cylinder, then what should be the minimum value of the volume of the cylinder?

8. If  $(a^2 @ b^2) = a^2 - b^2$  &  $(a^2 \# b^2) = a^2 + b^2$ , then

Col A:  $(2^2 @ -2^2) \# (3^2 @ -3^2)$

Col B: 0

9. The Harmonic Mean of 10, 20 is .....



- 1.D
- 2.B
- 3.1/9
- 4.6720
- 5.C
- 6.-60/7
- 7.?
- 8.C
- 9.40/3

Please ocrrect me if lam wrong anywhere

1.

Given a figure of 18 eighteen equilateral triangles as above with each side length of 1. What is the perimeter of the figure?

2. If  $8 < 2x < 14$  and  $6 < x+3 < 9$ , then

Col A:  $x$

Col B: 5

3. Given a right angled cylinder of diameter 20feet and height 4feet. What is the volume of the cylinder in gallons, when up to a depth of 3 feet and 6 inches? (Hint: 1 foot = 12 inches; 1 gallon = 231cubic.inches)

4. Given a set of numbers as 15, 16, 17, 18 & 19 and another set of numbers were given as 8, 9, 10, 11, 12, 13 & 14. When the two sets were added, how many such different numbers were possible?

5.

If the radius of the given circle is 5units, then how many points lie on the circle?

- A. 8
- B. 10
- C. 12
- D. 16
- E. 20

6. If 'X' invests Rs.5000 at the rate of 6% for annual and 'Y' invests Rs.6000 at the rate 6% for semiannual, then

Col A: The interest 'X' gets for 1year

Col B: The interest 'Y' gets for 1year

7. Given a triangle with sides 10, 10 and the area of the triangle is given as 32. Find the perimeter of the triangle?

8. Given that 'r' is a three digit number such that it contains 'x' in its hundredth place, 'y' in tens place, 'z' in units place. If 'x' is multiplied by 9, 'y' is multiplied by 6 and 'z' is multiplied by 2 then what is the value of the N735 (here 735 is given as suffix, & Question mean that  $r=735$ )

- A. 72
- B. 79

C. 86  
D. 91  
E. & so on...  
Ans: D

9. If  $x < 0$  then  
Col A:  $-x$   
Col B:  $|x|$

10. If the point  $(2,3)$  lies on the line  $mx + ky = 1$   
Col A:  $k$   
Col B:  $0$

11.

Given equation of the line as  $x + y - 4 = 0$   
Col A: Length of OB  
Col B: Length of OC

12. If  $(n-2)(n-3) = 0$ , then  
Col A:  $-2n-1$   
Col B:  $2n-1$

13.  $1^{-3} + 2^{-2} + 3^{-1} = ?$

14. Set A: 10, 30, 50, 70 & 90  
Set B: 10, 20, 50, 80 & 90  
Col A: standard deviation of A  
Col B: standard deviation of B

15. If  $x, y, z$  are integers  
Col A:  $yz/x$   
Col B:  $y/xz$

16. If  $a_k = \frac{1}{k} - \frac{1}{(k+1)}$ , then find the summation of  $a_1$  to  $a_{100}$ ?

- 1)12
- 2)D
- 3)?
- 4)11
- 5)?
- 6)B
- 7)?
- 8)91
- 9)C
- 10)D
- 11)C
- 12)B
- 13) $-(5/12)$
- 14)C
- 15)D
- 16)?

1. Col A:  $100! / 99!$   
Col B:  $(100! - 99!) / 98!$
2. The approximate value of  $((61.16)(0.9^{\text{😬}^2}))/\sqrt{401}$  is  
A. 5  
B. 4  
C. 3  
D. 2  
E. 1
3. When a number is divided by 12, the remainder is 5. What is the remainder when the square of that number is divided by 8?
4. Given that the room numbers of a floor are numbered from 101 to 550. If particular rooms are selected of numbers that start with 1, 2, 3 and lasts with 4, 5, 6 then in how many such ways the rooms can be selected?
5. If  $z > 1$  &  $z(x+y+z) = zx+zy+z$   
Col A:  $z$   
Col B:  $0$
6. Given four sides of a trapezium as 3, 4, 5, 8 and length of diagonal was given 'x'. What can be the possible value of 'x'?  
A.  $3 < x < 8$   
B.  $4 < x < 8$   
C.  $5 < x < 8$   
D.  $4 < x < 5$
7. Col A:  $0.99999/0.99998$   
Col B:  $1.0002/1.0001$
8. There are 33 balls and 7 boxes. Balls are filled in boxes such that no box is empty and no ball is left. which of the following is necessarily true?  
(i) there are 5 balls in atleast 1 box  
(ii) there are atleast 4 balls in every box  
(iii) there is atleast 1 box with the same number of balls  
A. Only i  
B. Only ii  
C. Only iii  
D. Both i and ii  
E. Both i and iii
9. Certain number of balls are kept in 'x' boxes such that each box contains equal number of balls and no box is empty. If there are 3 fewer boxes then 12 balls are kept in each box and 5 balls are left unpacked. What is the value of 'x'?
10.  $|2x+7| < 13$ .  
Col A:  $x$   
Col B:  $9$
11. Given P and N are positive integers such that both are not divisible by 4.  
Col A: The remainder when  $P+N$  is divided by 4  
Col B:  $1$
12. Given that there is a discount of  $x\%$  on an item followed by another discount of  $x\%$ . The resulting price is  $36\%$  of the original price. Then what can be the value of  $x$ ?  
(Quaestion is similar to this)
13. Number of Students Lowest Score Range  
10 110 21  
11 129 41  
Col A: Median of the combined 21 number of students

Col B: 129

14. If the selling price of a product is 25% lesser than its list price and 40% greater than its cost price, then what is the list price of the product if the cost price is 30 ?

15. Last year,  $\frac{1}{4}$  of factory workers are architects. One year ago 60 workers newly joined in which 50 are architects and no one left the factory since last year and if now  $\frac{1}{3}$  of factory workers are architects then find the total number of workers?

16. If  $x > y$  &  $y < 0$  then

col A:  $x-y$

col B:  $(y-x)^2$

The solutions for Sept 8th Quant thread are:

- 1.B
- 2.C
- 3.1
- 4.90
- 5.D
- 6.?
- 7.A
- 8.A
- 9.31
- 10.B
- 11.D
- 12.6
- 13.A
- 14.56
- 15.420
- 16.D

Please let me know in case of any Issues

ans for 12th is 40

consider price of 100

first 40% discount gives rs60

again 40% discount on rs60 gives 36

which is 36 % of 100(original price)

1. If  $n$  is a odd positive integer, then

Col A:  $(-2)^{((n+1)/2)}$

Col B:  $(-2)^{((n-1)/2)}$

- 2.

Given equation of the parabola as  $y = 2x - x^2$ .

Col A:  $t$

Col B:  $2s - s^2$

3. A person has 5 pairs of sox and each are differently colored. If a person picks one pair of sox simultaneously, what is the probability that it is of same colored pair?

4. How many different 5 digit numbers can formed, such that 1st and last place should be filled up with odd

number.

A. 25000

B. 20000

so on....

5. If  $(4/7) = (4+s)/(7+t)$ , then

Col A: s

Col B:  $(4t/7)$

6. If  $x(x-15/7)(x+4)(x+3)=0$ , then what is the product of maximum and minimum value of x?

7. If a square of  $125\text{cm}^3$  is fit into a cylinder, then what should be the minimum value of the volume of the cylinder?

8. If  $(a^2 @ b^2) = a^2 - b^2$  &  $(a^2 \# b^2) = a^2 + b^2$ , then

Col A:  $(2^2 @ -2^2) \# (3^2 @ -3^2)$

Col B: 0

9. The Harmonic Mean of 10, 20 is .....

1. D

2. B

3.  $1/9$

4. 6720

5. C

6.  $-60/7$

7. 98.214

8. C

9.  $40/3$

Please check the quant database for the diagram of the 2nd Question

Please correct me if iam wrong anywhere

1. What is the value of  $(-x)(-x)/(-x) =$

A.  $|x|$

B.  $-x$

2. If  $(125)(75) = (3^m)(5^n)$ , then

Col A: m

Col B: n

3. Given x, y & z are three positive integers greater than 1 and if  $x*y*z = 231$ , then what is the value of  $x + y + z = ?$

A. 9

B. 15

C. 21

D. Cannot be determined.

4. If the probability of A shooting a target is 0.8 and probability of B shooting the same target is 0.7, then What is the probability that neither of them hit the target?

5. If  $x + y + z = 4$  and  $-4z = 4$ , then what is the value of  $x + y - z = ?$

6. If 'x' is a negative integer, then

Col A:  $4/x$

Col B:  $x/4$

7. If the point (1, 2) lie on the line  $mx+ky=3$ , then

Col A: k  
Col B: 0

8. A triangle is given with sides  $x$ ,  $y$  &  $z$ . If  $z = \frac{1}{4}(\text{perimeter})$  &  $x + y = 12$  then find perimeter.

9. If  $\frac{4}{7} = \frac{(4+s)}{(7+t)}$ , then

Col A: s

Col B:  $\frac{4t}{7}$

10. If  $x(x-15/7)(x+4)(x+3) = 0$ , then what is the product of maximum and minimum value of  $x$ ?

11. Col A:  $10^{12} + 2^{12}$

Col B:  $12^{12}$

12. An area of 1350 is given whose length is 15yards more than the width. Calculate the amount of wire needed for fencing in yards?

- 1.A
- 2.A
- 3.C
- 4.0.06
- 5.6
- 6.D
- 7.D
- 8.16
- 9.C
- 10. $(-60/7)$
- 11.B
- 12.150

Please correct me if iam wrong anywhere

recheck ur 11th n 12th answers..

i think 11th is c n

12th is 30-u get quad eq  $w^2 + 15w - 1350 = 0$

1. If  $a + b = (a + b)^2$  &  $a = 1$ , then

Col A: a

Col B: b

2. Which of the following cannot be the number of prime numbers between 'n' and 'n+6' inclusive, if n is a positive integer?

A. 0

B. 2

C. 3

& so on....

3.

Given a figure of 18 eighteen equilateral triangles as above with each side length of 1. What is the perimeter of the figure?

4. If  $x + y > 0$  &  $y < 0$

Col A: x

Col B:  $|y|$

5. The greatest prime factor of  $k$  is a positive integer

Col A:  $40k$

Col B:  $39k$

6. If  $x < 0$ , then

Col A:  $|x|$

Col B:  $-x$

7. A bicyclist has to be chosen from 4 adults and 4 children

Col A: How many 3 adult and 4 children teams can be formed

Col B: How many 2 adult and 2 children teams can be formed

8. Col A: 4th root of 121

Col B: 121

9. If  $x$  is a positive integer then

Col A: 110% of 90% of  $x$

Col B:  $xx(\text{some value})$

10.

Given equation of the line as  $x + y - 4 = 0$

Col A: Length of OB

Col B: Length of OC

1.A

2.A

3.12

4.A

5.?

6.C

7.?

8.B

9.COLA:  $0.99x$ , Depends on the value in COLB

10.C

Please let me know in case of any Issues

I think answer for 5 is D.

ColA: Greatest prime factor of 40 is 5

ColB: Greatest prime factor of 39 is 13

By testing it with values of  $k=17,5$ ..u get answer to be D.

Correct me if I am wrong.

1. A

2. A

3. Where is da figure?

4. A
  5. D
  6. C
  7. is da prob correct?
  8. B
  9. B
  10. Where is da figure?
- 
1. There are two cylinders A & B. The base area of A is  $4\pi$  and B is  $8\pi$ . Height of water in A cylinder is 3 inches and in B cylinder it is 1 inch. Little water from A cylinder is taken and put into the B cylinder, so that the height in two cylinders are equal. What is the new height in the cylinder B?  
  
2. If  $[z]$  represents greatest value less than or equal to  $z$  and  $x$  and  $y$  are positive, then  
Col A:  $[x] + [y]$   
Col B:  $[x+y]$   
  
3. If  $x < 0$ , then  
Col A:  $-x$   
Col B:  $|x|$   
  
4. If  $t^4 = 16$ , then  
Col A:  $t$   
Col B:  $2$   
  
5. A circle was given with triangle inscribed in it. One side of triangle is diameter. Length of one side is given as 5 and area of triangle is given as 5. What is the area of circle?  
  
6. If in a group of 67, 48 liked sky diving, 27 liked car racing and all of them liked sky diving or car racing or both then how many liked both?  
  
7. If  $n$  is a positive integer, the number of primes in between  $n$  and  $n+6$  cannot be?  
A. 0  
B. 2  
C. 6  
D. 3  
E. 4  
  
8. Two businessman invest Rs.40,000 each for one year at different interests. At the end of one year they add the interest to Rs.40000 and again invested.  
Col A: The interest earned by businessman, who invests at 10% rate in 1st year and 6% rate in second year.  
ColB. The interest earned by businessman, who invests at 6% rate in 1st year and 10% rate in second year.  
  
9. If  $(n-2)(n-3) = 0$ , then  
Col A:  $-2n-1$   
Col B:  $2n+1$   
  
10. How many different five digit numbers can be formed, if first and last digit is odd?

The answers are :

- 1)2.62
- 2)D
- 3)C
- 4)D
- 5)?
- 6)8
- 7)A
- 8)If total interest is asked then C,
- 9)B
- 10)25000

Please correct me if iam wrong anywhere



For the 5th question,

If one side of the triangle formed is the diameter of the circle, then the triangle formed will be right angled triangle.

one side of the triangle is given as 5

If it is a right angled triangle, the height of the triangle will be the other side of the triangle, let it be x

Given the area of the triangle =5

therefore,  $0.5 * x * 5 = 5$

therefore,  $x = 2$

the diameter will be the hypotenuse of the triangle =  $\sqrt{5^2 + 2^2} = \sqrt{29}$

radius of the circle will be  $\sqrt{29}/2$

Area of the circle =  $(3.14 * 29)/4 = 22.76$

Please correct me if I am wrong anywhere

in the area of the triangle...since one of the sides is the diameter then the triangle can only be made in the semi circle hence there it is a right angled triangle with the base as the diameter and the radius as the height. so area of the triangle is  $\frac{1}{2} * r * 2r = r^2$

thus  $r = (5)^{.5}$

and area of circle can be calculated

the first question answer is

1.665

I will explain...

cylinder A area =  $4\pi$

cylinder B area =  $8\pi$

so the since the area is constant for both the rate of increase of volume is directly proportional to height....

1 inch of water in cyl A =  $4\pi \text{ inch}^3$

1 inch of water in cyl B =  $8\pi \text{ inch}^3$

so A is half of B.... at 1 inch rate ...

when we transfer 1 inch of water from A to B ... A will then contain 2 inch while B will become 1.5 inches .... in height.

when we transfer .34 inches of water from A to B .... A will become 1.66 inch and B will have  $1.5 + \frac{1}{2} \text{ of } 0.34$  i.e .17 inches.... so 1.67 ... s

approx at 1.665 both will have equal heights....

---

Q8. Two businessmen invest Rs.40,000 each for one year at different interests. At the end of one year they add the interest to Rs.40,000 and again invested.

Col A: The interest earned by businessman, who invests at 10% rate in 1st year and 6% rate in second year.

Col B: The interest earned by businessman, who invests at 6% rate in 1st year and 10% rate in second year.

ans...

col A :

1st yr....

$$40000 \times 1 \times 10 / 100 = 4000$$

so he will invest back 44,000 rupees next....

at the 2nd yr

$$44000 \times 1 \times 6 / 1000 = 2640 \text{ rupees}$$

$$\text{col B : } 40000 \times 1 \times 6 / 100 = 2400 \text{ rupees}$$

and next yr he will invest 42400 and get back 4240 rupees at 10 % rate...

so clearly col B is greater...

---

Ravi

7. If  $n$  is a positive integer, the number of primes in between  $n$  and  $n+6$  cannot be?

- A. 0
- B. 2
- C. 6
- D. 3
- E. 4

when we refer 1st 100 primes we get to know that ....

option 1 is true as between 89 and 97 there are no primes... and everything else is possible except option C ... that is ^...

so the number of primes between  $n$  and  $n+6$  can not be 6.

answer = c

---

Ravi

6. If in a group of 67, 48 liked sky diving, 27 liked car racing and all of them liked sky diving or car racing or both then how many liked both?

:

can someone explain me this....????

---

Ravi

Hi

Question 3:

If  $x < 0$ , then

Col A:  $-x$

Col B:  $|x|$

Solution:

Since  $x$  is negative

Col A is positive (numerical value of  $x$ )

Col B is negative (numerical value of  $x$ )

Thus answer is 'A' and not 'B'

Question 7:

If  $n$  is a positive integer, the number of primes in between  $n$  and  $n+6$  cannot be?

Solution: Between  $(n)$  and  $(n+6)$ , there are 5 numbers.

Case 1: Let  $n$  be odd, then there are 3 even numbers between  $n$  and  $n+6$ . Thus answer is 3, since even numbers can never be prime.

Case 2: Let  $n$  is even, there are 3 odd and 2 even numbers between  $n$  and  $n+6$ . Since, 3 consecutive odd numbers can never go without one number divisible by 3, the 2 even and one odd has to be divisible by 2 and 3 respectively. Thus, here also answer : 3

ANSWER: (D)3

For question 6.

If in a group of 67, 48 liked sky diving, 27 liked car racing and all of them liked sky diving or car racing or both then how many liked both?

Simply apply Venn diagram concept.

There are two events.

$n(a) = 48$

$n(b) = 27$

$48 + 27 - 67 = 8$  answer

1. A tanker contains 35000 gallons of Oil, It delivers 100Gallons and 200 Gallons in 35 refueling stations. How many stations received 100Gallons and how many received 200Gallons

2.  $a < 0$  and  $b > 0$

Col A  $a^{-7} * b^{-2}$

Col B  $(a*b)^{-14}$

3.  $(1-\sqrt{2})(1+\sqrt{2})(1-\sqrt{5})(1+\sqrt{5})$

4. harmonic mean of 10,20

5. Two adjacent vertices of a square are  $(-3,-2)$  and  $(5,-2)$  what is the length of the diagonal of the square?

6. 1 yard=3feet and 1feet=12 inch. Convert Y yards and X inches to feet

7. If  $(a^2 + b^2) = a^2 - b^2$  &  $(a^2 - b^2) = a^2 + b^2$ , then

Col A:  $(2^2 @ -2^2) \# (3^2 @ -3^2)$

Col B: 0

8. If LCM of x and y is 24 and LCM of z and w is 30, then what is the LCM of all x, y, z & w?

9. A square carpet is laid on a square floor and the area of square floor is 30.64 more than the area of carpet. With the length of the side of floor being 10% more than that of the carpet, what is the length of one side of the carpet?

10. Given that a fruit vendor has 'T' fruits and he sells 150 fruits of them for \$0.36. The next day the vendor wants to get the same amount of money he got the previous day, so he changes the price, What is the changed price in terms of 'T'?

11. If 'f' is function such that  $f(x)$  = sum of prime factors of x (even repeating prime factors)

Col A:  $f(256)$

Col B:  $f(210)$

12.  $7 < 2n-1 < 9$  (The relationship may be different but similar to this)

Col A n

Col B 6

13. Given a set 11,12,13,14,15

What can you do to the set that will increase the average but keep the standard deviation constant.

A. Add another 13

B. Replace 15 by 20

I don't remember the rest two options

14. n is a odd +ve integers

$a = (n+1)/2$

$b = (n-1)/2$

Col A  $(-2)^a$

Col B  $(-2)^b$

15. Which of the following is in between  $3/13$  and  $4/13$

A  $9/26$

B  $10/52$

C  $13/39$

D  $15/39$

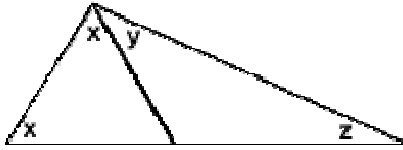
E  $19/65$

16. Jaune will be twice the age of her brother's present age after three years.

Col A Jaune's Present age

Col B Jaune's brother's present age

17. Given this picture



Col A  $2x$

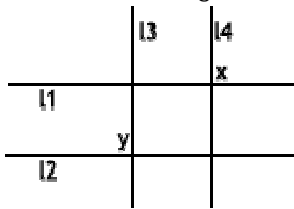
Col B  $y+z$

18. Col A Volume of a right cylinder with radius  $\sqrt{3}$  and height 3

Col B Volume of a cube with side length 3

19. In a college 20% and 25% of people are above age 55yr in two departments. What is the probability that is two persons were selected from these two departments at random they will be at least 55 years old.

20. Given this figure



$l1 \parallel l2$

$l3 \parallel l4$

Col A  $x$

Col b  $y$

21. The perimeter of a square is same as its area. What is the length of the side of the square?

I will be posting the answer soon. be warned that I scored only 680 in the test. I don't know what went wrong. However you have the reason not to trust me 😊😊

1. 200 ltr stations = 15  
100 ltr stations = 5

Solve the simultaneous equations

$$x+y=20$$

$$100x+200y=3500$$

$$x+2y=35$$

2. Col B will be greater as it will be always +ve

$$3. (-1)*(-4)=4$$

$$4. 2/(1/10 + 1/20)$$

$$=2/3/20$$

$$=40/3$$

$$=13 \text{ (Approx)}$$

I am finding approx because there was no fraction in the option. It has 13 as option

5. Since Y-coordinate is same the distance is difference between the x coordinates

$$5-(-3)=8$$

6. 1 yard=3feet  
Y yard=3Y feet

12 inch =1 feet  
Xinch=X/12 feet

So Y yard X inch = 3Y + X/12 feet

7. Both Col are equal ( $0^2 + 0^2$ )

8. This question is seen many time in the quant database faultily. This is the right question  
And here is the Solution  
Let F=side of floor  
C= Side of carpet

$F=1.1 * C$  (10% extra)  
 $F^2 = 30.12 + C^2$   
So we have now  
 $(1.1 * C)^2 = 30.64 + C^2$   
 $1.21C^2 = 30.64 + C^2$   
 $0.21C^2 = 30.64$   
 $C^2 = 30.64/0.21$   
 $C^2 = 145$   
 $C = 12(\text{Approx})$

9. LCM of 24 and 30 i.e. 120

10.  $(0.36)^{150} / T - 150$

11.  $f(256) = 2+2+2+2+2+2+2+2+2 = 16$   
 $f(210) = 2+5+7+3 = 17$

So you know which col is greater. I don't need to write

$12 < 2n-1 < 9$   
 $8 < 2n < 10$   
 $4 < n < 5$

So n is less than 6

13. Not clear (Please somebody try to answer this)

14. values of a and b can be even or odd. So the relationship cannot be determined

15.  $19/65 = 3.8/13$  (divide both N and D by 5)

So this will  $3/13$  and  $4/13$

16. The answer will be cannot be defined.

Let the girls age (Sorry the name is too complicated for me) = x  
her brother's age = y

$x+3 = 2*y$

now as we can see  
 $x < y$  if  $x < 3$   
 $x=y$  if  $x=3$   
 $x > y$  if  $x > 3$

17.  $2x = 180 - (180 - (x+y))$

$$2x = x + y$$

both columns are equal.

18. Volume of cylinder  $\pi * (\text{root}3)^2 * 3 = \pi * 3^2 * 3$   
Volume of cube =  $3^3$

Now as we know  $\pi$  is greater than 3 volume of the cylinder will be larger than that of the cube.

19. 20% 55yr old from one dept and 25% 55yr old from another dept.

If we assume there are total 100 people in the depts then total 45 people are 55yr old from both the dept i.e. among 200 people

Number of ways 2 people can be choose from 200 people  $200C2 = \frac{200!}{198! * 2!} = 19900$

Answer is  $\frac{45}{19900} = \frac{9}{3980}$

20. The answer is relationship cannot be determined. Because though in the picture it is given the two straight lines are at perfect 90 degree they can be inclined to any side and  $x+y$  will always be 180 but they can be equal, as in this case, greater or lesser than each other

21.  $4 * x = x^2$

$$x = 4$$

Length of the diagonal is  $\text{root}2$  times side. So it will be  $4 * \text{root}2$

.....

Hi there is one more question which needs to be addressed and which has caused confusion bcoz of vagueness ....

the bicycle problem.....

6 bicyclists from 4 children and 4 adults.....

col a : 3 childre and 4 adults teams....

col b : 2 c and 2 a

it lloks like col B is bigger....

any idea what it is....

u can solve the problem now with more ease as u may expect it next time.... 😊

post if u cud....

---

Ravi

13. I think the question is to keep the average and s.d unchanged...  
by adding 13 we can not alter any of them...

I think..that might be the question...

19. sice it asked atleast one is 55 yrs old

this mite b the solution..

$$20/100 \cdot 75/100 + 80/100 \cdot 25/100 + 20/100 \cdot 25/100$$

$$= 3/5$$

am i right

---

G.P.REDDY  
9885273666

Quant:

1. A person has 10 pairs of sox and each are differently colored. If a person picks one pair of sox simultaneously, what is the probability that it is a same colored pair?

- A.  $1/4$
- B.  $1/5$
- C.  $1/9$
- D.  $1/10$
- E.  $1/(xx)$

2. If the LCM of x, y is 24 and the LCM of k, z is 30 then what is the LCM of x, y, k, z?

3. Given that a fruit vendor has 'T' fruits and he sells 150 fruits of them for \$0.36. The next day the vendor wants to get the same amount of money he got the previous day, so he changes the price, What is the changed price in terms of 'T'?  
(Question is similar to this)

4. If  $t^4 = 16$  then

Col A: t

Col B: 2

5. If the angles of a triangle are in the ratio of 1:2:3 then what is the largest angle?

6. Given set A: {15,16,17,18,19} and set B: {6,7,8,9}. If set C is the sum of set A and set B elements then what are the different possible values of set C?

7. Given an equilateral triangle ABC, & 'D' is the midpoint of BC. If AD = X then what is the perimeter of the triangle in terms of x?

8. Given a line which is passing through  $\{1/2, 1/2\}$  & origin. Which of the following equations has same slope?

A.  $Y = X$

& so on...



9. If the volume of the cylinder 'A' (whose radius is 'R' and height is 'H') is 'K' then what is the volume of another cylinder B whose radius & height is double the radius & height of cylinder A?

Col A: K

Col B: 4K

10. Which of the following is equal to 586?

A.  $-(384 - 586) + 384$

.. & so on...

---

Admin,  
drrajusgre.com

1) D 1/10

2) 120 am i right?

3)?

4)D

5)90

6)8

7) $\sqrt{3} \cdot 2 \cdot x$

😊  $x=y$

9)4K

10)?

please tel me how to solve the 3rd question

[quote="lilac"]1) D 1/10

2) 120 am i right?

3)?

4)D

5)90

6)8

7) $\sqrt{3} \cdot 2 \cdot x$

😊  $x=y$

9)4K

10)?

please tel me how to solve the 3rd question[/quote]

hii... the third question can be solved this way.. ( let me no if i am wrong )

He is selling 150 orange's for 0.36\$... not the net gross is 0.36\$... he has to match the same net gross.... ( i.e 0.36\$) so he is increasing his per fruit price...

Consider that increased value as X

$X * (T - 150)$  (the remaining oranges) = 0.36 \$

therefore...  $X = 0.36 / (T - 150)$  😊

Quant:

1. In every month, a hospital is opened only in last week. If 10 people travel through bus to hospital, What is the probability that atleast two people travel on the same day?

2. A person 'X' invests 'P' dollars at once. If in  $7\frac{1}{4}$  years the amount is doubled, then what would be the amount in terms of 'P' for 29years?

3. Col A: 10% of 90% of x

Col B: x

4. A car travelled 2882(palindrome) km with velocity 55kmph. Find the time required for car to reach a distance of next palindrome?

5. Find the probability to get a four digit number with replacement allowed?

6. If  $12 < 3X < 21$  &  $4 < X < 6$ , then

Col A: X

Col B: 5

7. Given that 'r' is a three digit number such that it contains 'x' in its hundredth place, 'y' in tens place, 'z' in units place. If 'x' is multiplied by 9, 'y' is multiplied by 6 and 'z' is multiplied by 2 then what is the value of the N735 (here 735 is given as suffix, & Question mean that  $r=735$ )

A. 72

B. 79

C. 86

D. 91

E. & so on...

Ans: D

8. Given 5cent coins = x, 10cents coins = y & 15cents coins = z. If  $x = y$  and  $5x + 10y = 25z = 585$ , then Find number of 5cent coins?

(In this Question, the options given were in equation form)

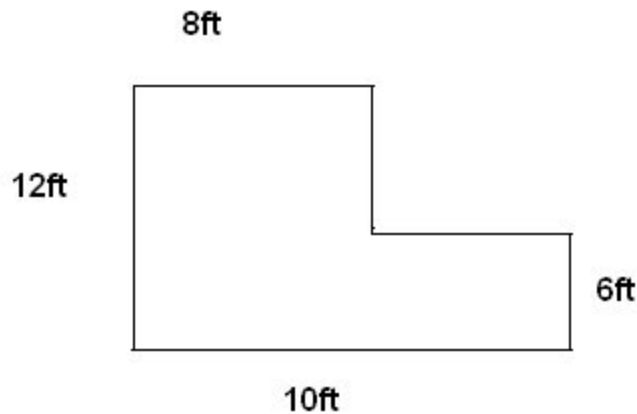
9. A cylinder 'm' of height 2 and radius 3 is given. Now another cylinder 'k' of double the height of previous one and double the radius of previous one is given.

Col A: Double the volume of 'm' cylinder

Col B: volume of cylinder k

10. Given an equation  $x + y = 4$ . Calculate the area of the triangle made by the line and the intercepts on X-axis and Y-axis by the line?

11.



If one feet = 3yards and painting each yard costs some xxx dollars with canvassing cost 20% extra then cost of painting & canvassing the area is?

---

Admin,

drrajusgre.com1.It was confusing to me..but let me guess the answer...hospital is open for 7 days...so at least 2 persons come together in 3 days

so 3/7..I am sure this wrong but my thoughts are limited with the data provided

2.it becomes 16 times...16p

3.can not be determined without knowing the value of x

4.next palindrome is 2992...total 110 kms...time taken 2 hours

5. $9 \times 9 \times 8 \times 7$ ...first digit cannot be 0 so there are 9 ways..second there will be 9 digits excluding the first...so 9 ways...it goes on like that

6.we cannot determine the values..D option

7.please mug up the answer it came thrice i think this month...some body brief it how we get the answer.

8. $39 \dots x = y$  so  $15x = 585$

9.col B is greater..since doubling the vol makes it 2 times but k is 8 times the volume.it is directly proportional to  $r^2 h$ .

10. $8 \dots x$  and y intercepts are 4,0 and 0,4 so area is 8 units

11. area is 108 sq.feet = 324 sq.yards...we need to multiply by that xx dollars and we need to again multiply by .2 and then both ..to get the answer

---

G.P.REDDY  
9885273666

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---

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Quant:

1. If 'n' is a integer, then  
Col A: Remainder of  $(n^2 + n)/2$   
Col B: 0

2. If  $1 < R < S < T < 2$ , then what is the value of  $R + S \cdot 10^6 + T \cdot 10^{12}$  is ?  
A.  $(R + S + T) \cdot 10^6$   
B.  $(R + S + T) \cdot 10^{12}$   
C.  $(R + S + T) \cdot 10^9$   
D.  $(T \cdot 10^{12})$   
& so on...

3. Some puzzle board is in the form of equilateral triangle and its area is given as 42. If it is placed on a table which is of a square shape, what is the minimum square area of the table?

4. A person on bicycle travels  $\frac{2}{3}$ rd of distance. After travelling  $\frac{2}{3}$ rd distance, due to some problem with his bicycle, he travels the rest of the distance by walking. If the time taken by the person in walking is 3 times the time taken in travelling by bicycle, then how many times is the speed of the bicycle greater than the speed of the man walking?

5. Col A:  $0.01/1 - 0.01$   
Col B:  $0.1/1 - 0.1$

6. A square carpet is laid on a square floor and the area of square floor is 30.64 more than the area of carpet. With the area of floor being 10% more than area of the carpet, what is the area of the carpet?  
(Given question is similar to this.... but numerical values(given above) may not be exact)  
A. 8  
B. 9  
C. 10  
D. 11  
E. 12

7. Given a set of numbers as 15, 16, 17, 18 & 19 and another set of numbers were given as 8, 9, 10, 11, 12, 13 & 14. When the two sets were added, how many such different numbers were possible?

8. If  $t^4 = 16$ , then  
Col A:  $t$   
Col B: 2

9. If a number is divisible by 5 the remainder is 3 and when the same number is divided by 7 the remainder is 4. What is the least possible number?

10. If 'x' and 'y' are integers, then  
Col A:  $365(x+2y)$   
Col B:  $365(x+y) + 365(x+y)$

---

Admin,  
drrajusgre.com

- 1.C
- 2.I tink options are incorrect
- 3. $56(\sqrt{3})$ ...i have a doubt on this
- 4.Speed of cycling =  $6 \times$  speed of walking
- 5.B
- 6.the options abd even the question is wrong, the coorrect question is given in one of the previous database
- 7.11
- 8.D
- 9.18
- 10.D

Please correct me if iam wrong anywhere

Hi Venkee

Question 1,2,3 --> allrite  
Ques 4 --> How many times is the speed of the bicycle greater than the Speed of the man walking?  
Solution: Speed of bicycle =  $6 \times$  Speed of walk  
so, Speed of bicycle is 5 times > Speed of walk.

Question 5: I think there's something wrong in the question. It is clearly evident that both are equal and the values are zero for both the cases.

Answer: C

first term is divided by 1 (will give first term numerator only) and first term numerator and second term is same both the case.

Here's the question:

Col A:  $0.01/1 - 0.01$

Col B:  $0.1/1 - 0.1$

This is the correct question. How do I know that for sure. Because it came in my exam.

6. A square carpet is laid on a square floor and the area of square floor is 30.64 more than the area of carpet. With the length of the side of floor being 10% more than that of the carpet, what is the length of one side of the carpet?

- A. 8
- B. 9
- C. 10
- D. 11
- E. 12

Here is the solution

Let  $F$  = side of floor

$C$  = Side of carpet

$F = 1.1 * C$  (10% extra)

$F^2 = 30.64 + C^2$

So we have now

$(1.1 * C)^2 = 30.64 + C^2$

$1.21C^2 = 30.64 + C^2$

$0.21C^2 = 30.64$

$C^2 = 30.64/0.21$

$C^2 = 145$  (Approx.)

$C = 12$  (Approx.)

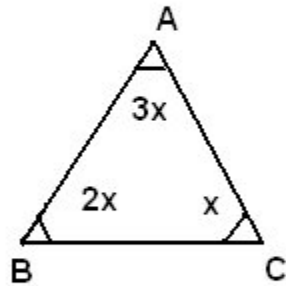
Quant:

1. If  $y^2 - 2y - 8 = 0$ , then

Col A:  $y$

Col B: 0

2.



What is the value of  $x$ ?

3.If it takes 't' mins to travel 'X' miles, then

Col A: The time taken in hours to travel 900miles is

Col B:  $15t/x$

4.150% of 40% of (5) =?

5.Given mean of five numbers as 82. If four of the five numbers are given as 50, 60, 90 & 100, then

Col A: Median of five numbers

Col B: 82

6.In group of 65numbers, if 48 like skydiving and 27 like car driving, then what is the number of people who like only skydiving?

7.The greatest prime factor if k is a positive integer

Col A:  $40k$

Col B:  $39k$

8.The range of list-1 is 16 and range of list-2 is 10(approx values)....If both the lists are combined what will be the minimum value of their range?

9.A figure was given and it was mentioned as a parallelogram. The adjacent sides were given as 10 each.

Col A: length of a diagonal BD of the parallelogram

Col B: 8

10. A bus moves between two given places for 1 week. If 10 people travel by that bus then what is probability that atleast two people travel by the bus on the same day?

11. A six people have to be chosen from 4 adults and 4 children.

Col A: number of groups formed with 4 children and 2 adults

Col B: number of groups formed with 3 adults and 3 children.

12. If two numbers when divided by 38 leave equal remainders. When divided by 19 the remainders are r and s.

Col A: r

Col B: s

13. If x, y, z are negative integers, then

Col A:  $x + y + z$

Col B:  $1/x + y + z$

14. If 'n' is an integer, then

Col A: The remainder of  $n^2 + n$

Col B: 0

15. In a certain place the people were migrating from less populated area to more populated area. The percentage of migration from 1980 to 1985 (A five years period) was 10%. The percentage of migration from 1980 to 1990 (ten years period) was 20%. Then what is the percentage of migration from 1985 to 1990?

16. If  $x(x-15/7)(x+4)(x+3)=0$ , then what is the product of maximum and minimum value of x?

& few previous database Questions

[quote="drrajus faculty"]Quant:

1. If  $y^2 - 2y - 8 = 0$ , then

Col A: y

Col B: 0

2.

[img]http://i321.photobucket.com/albums/nn375/ravali214/fg2-1.jpg[/img]

What is the value of x?

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& few previous database Questions[/quote]

ans-1-d

2.30

3.c

4.3

5.a

6??? lemme know

7.d

8.24 i think..

9.a

10??

11.b

12.c

13.b

14.d

15.??

16.-60/z

For 6th quest.

$(48-x) + x + (27-x) = 65$  is the equation to be solved..

---

Regards,  
Himanshu

Quant:

1.Col A: Distance from  $(x, y)$  and origin  
Col B: Distance from  $(1-x, 1-y)$  and origin

2.If  $x \neq 0$ , then

Col A:  $|x| - 2$

Col B:  $|x-2|$

3.If a point  $(1, 2)$  lies on the line  $Mx + Ky = 2$ , then

Col A:  $k$

Col B:  $0$

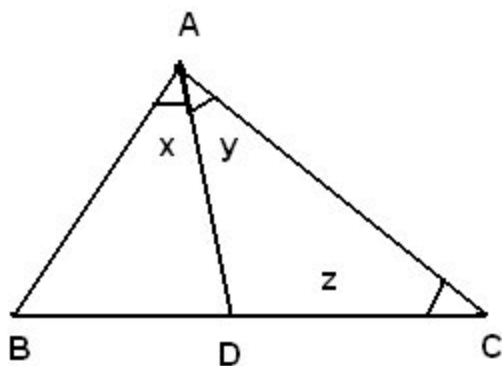
4.Col A:  $100^2$

Col B:  $2^{100}$

5.Col A:  $12^{10}$

Col B:  $10^{10} + 12^{10}$

6.

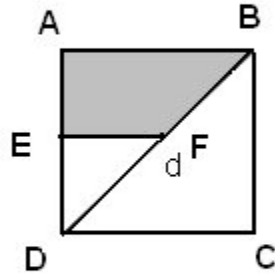


If  $AB < BD$ , then

Col A:  $x + y/2$

Col B:  $y + z/2$

7.



Given a figure of a square as above. Only the diagonal 'd' (some numerical value) is given, and asked to find the area of the above shaded part (ABEF)?

8. Find the value of  $1^{-1} + 2^{-2} + 3^{-1} = ?$

9. If the area of a square is equal to the perimeter of the square, then find the length of the diagonal?

10. If  $(x-2)(x-3)(2x-15)(4x+1)=0$ , then find the product of maximum and minimum value of  $x$ ?

11. If  $n$  is a positive odd integer and

$a = n-1/2$  &  $b = n+1/2$  then

Col A:  $-2^a$

Col B:  $-2^b$

---

Admin,  
drrajusgre.com

according to me the answers are

1) D

2) D

3) D

4) B

5) A ( i think COLB should be  $10^{10} + 2^{10}$  😄😄😄 )

6) A

7)  $11 \cdot d \cdot d / 16$  (if  $d$  is the length of the diagonal)

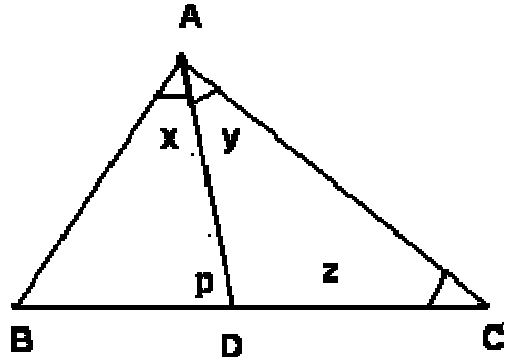
8)  $19/12$

- 9)  $4\sqrt{2}$   
 10)  $-15/8$   
 11) D

correct me if i'm wrong

Explanation for Q6

See the figure below.



Let denote an angle 'p' in the triangle ABD

Now  $p = y + z$  as y and z are the external angles to the triangle

Given in the question  $AB < BD$  So their corresponding angles i.e. the angles directly facing towards these sides will also have the same relationship.

So  $p < x$

Now with this much of info let's analyze the Columns

Let's subtract Col B from Col A. If the answer is +ve then Col B is greater and if -ve then Col A wins

So

Let  $R = \text{Col B} - \text{Col A}$

$$R = y + z/2 - (x + y/2)$$

$$R = y/2 + z/2 - x$$

$$R = (x+y)/2 - x$$

Now we know that  $x+y=p$

$$R = p/2 - x$$

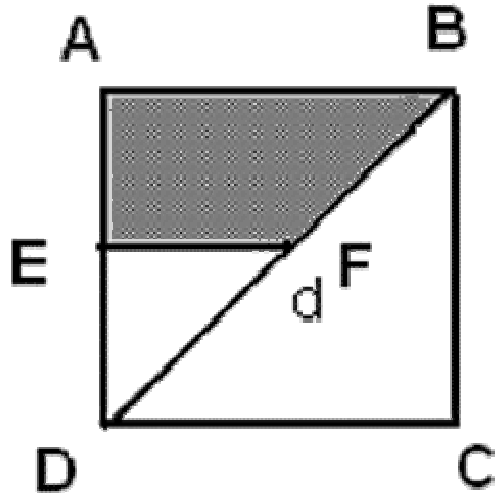
Now since  $p < x$ ,  $p/2$  will obviously be less than x

So we have

$$R = -ve$$

That means Col A is greater than Col B

Explanation for Q7



Given the diagonal  $d$  So side length =  $d/\sqrt{2}$

We can calculate the Area of the region using the area of trapezium formula which is as follows

$$\frac{1}{2} * (\text{Sum of parallel sides}) * (\text{Perpendicular distance between the parallel sides})$$

In our trapezium One parallel side is the side of the square and the other is half the side of the square. Here the height is also the half the side of the square. We can prove this using pythagoruous theorm

$$(d/2)^2 - (d/2\sqrt{2})^2 = (d/2\sqrt{2})^2$$

$$\begin{aligned} \text{So now we have area} &= \frac{1}{2} * (d/2 + d/2\sqrt{2}) * d/2\sqrt{2} \\ &= \frac{1}{2\sqrt{2}} * (d/2 + d) * d/2\sqrt{2} \\ &= \frac{1}{8} * ((3d^2)/2) \\ &= \frac{1}{16} * (3d^2) \end{aligned}$$

hi charanj

11. If  $n$  is a positive odd integer and

$a = (n-1)/2$  &  $b = (n+1)/2$  then

Col A:  $-2^a$

Col B:  $-2^b$

consider  $n=1$  then  $a=0$   $b=1$

cola : 1

colb : -2 cola > colb

now consider  $n=3$  then  $a=1$   $b=2$

cola : -2

colb : 4 colb > cola

therefore answer is D

Hey Ganesh,

Oops,, i forgot to the values in ColA & ColB, i just compared the raw values of a & b.

1 more correction:

2 condition, when  $n=3$ ,  $a=1$  &  $b=2$

So  $\text{colA} = -2^a = -2$  and  $\text{colB} = -2^b = -4$  so  $\text{colA} > \text{B}$

when  $n=11$ ,  $a=5$  &  $b=6$ , so in this case  $\text{ColB} > \text{ColA}$  and therefore the answer is D.

Correct me if am wrong.

2. If  $x \neq 0$ , then

Col A:  $|x| - 2$

Col B:  $|x-2|$

-----

i think, its typin mistake.. it might be  $x = 10$  instead of  $x \neq 0$

i got,

1 D

2 C

3 ??? cn somebody explain pls..

4 B

5 B

6 D

7  $(3d^2)/16$

8  $19/12$

9  $4\sqrt{2}$

10  $-15/8$

11 D

Sorry that was a typo

$R = y/2 + z/2 - x$

$R = (y+z)/2 - x$

Rest remains the same

$R = p/2 - x$

Now since  $p < x$ ,  $p/2$  will obviously less than  $x$

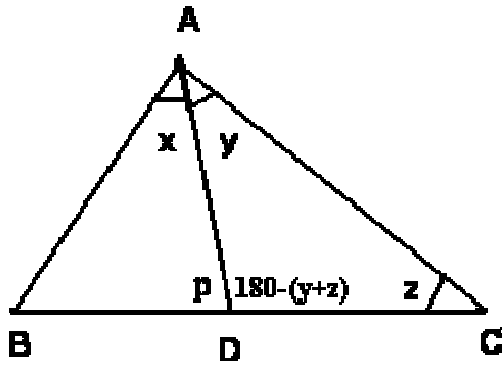
So we have

$R = -ve$

So Col B - Col A is Negative

That means Col A is greater than Col B

Now if you are confused how  $p=y+z$  then see figure below



Still not convinced then see the equation

$$p + 180 - (y+z) = 180$$

$$p - (y+z) = 0$$

$$p = y+z$$

3. If a point (1, 2) lies on the line  $Mx + Ky = 2$ , then

Col A:  $k$

Col B: 0

the answer will be "Relationship cannot be determined" i.e. 'D'

Here the equation of the line is given as  $Mx + Ky = 2$ . Since the point (1,2) lies on the line it will satisfy the equation of the line.

$$\text{So we have } M*1 + K*2 = 2$$

Now we have a single equation and two unknowns  $M$  and  $K$ . So there is no way we can know the value of  $K$  or even  $M$ . So the answer is D.

Now let's think like the ETS guys. Why they have ' $K$ ' in Col A and ' $0$ ' in Col B. Because they want us to make a conceptual mistake in the calculation and end with the answer C i.e. Col A equals to Col B. Now what is the mistake.

The conceptual mistake is. A lot of people think that slope is  $y/x$ . So they just calculate slope whenever they find an ordered pair or any  $x$  and  $y$ . So they will end up calculating slope as  $M=2/1=2$  then they put the value of  $M$  in the eqn  $M*1 + K*2 = 2$  and get  $K=0$ .

But remember Never never never say that slope is  $Y/X$ .

The definition of slope is the tan of the angle made by a straight line in the positive direction of X-axis. If you remember this definition then you are less likely to make errors in question relating to slope calculations.

So slope can be calculated by finding the X intercept and Y intercept and dividing the Y intercept to the X intercept of the straight line. Or for a straight line in the general form  $ax + by + c = 0$ . The slope of the line can be calculated as  $-(\text{Co-efficient of } y / \text{Co-efficient of } x)$ . So don't ever think of finding out the slope of a point and fall in the trap of ETS for this sort of questions.

Quant:

1. If  $t^4 = 16$ , then

Col A:  $t$

Col B: 2

2. If  $x(x+4)(2x-15)(x-1)(x+2) = 0$ , then what is the product of maximum and minimum value of  $x$ ?

3. Col A: 0.03hr - 8min

Col B: 4min

(Question is similar to this)

4. A square which has a volume 125 cubic feet is fitted into a cylinder provided the square is inflexible. Then, what will be volume of cylinder?

Col A: Volume of cylinder

Col B:  $125\pi/2$

5. The probability of A hitting a target is  $2/3$ . And probability of B hitting the same target is  $4/7$ . So, what is the probability that neither of them will hit the target?

6. If  $a_k = 1/k - 1/(k+1)$ , then find out the summation of  $a_2$  to  $a_{100}$ ?

(Here  $k$ , 2 & 100 are suffixes)

7. If  $x = (2 - \sqrt{3})(1 - \sqrt{5})(2 + \sqrt{3})(1 + \sqrt{5})$ , then find out  $x$ ?

8. If  $s^2 = 81$

Col A:  $s$

Col B: 9

9. If 'f' is function such that  $f(x)$  = sum of prime factors of  $x$  (even repeating prime factors)

Col A:  $f(256)$

Col B:  $f(210)$

10. Given a sequence  $a_1, a_2, \dots, a_n$ . If  $a_1 = 25$  & in the sequence if every number is '-2' times the preceding number, then

Col A:  $a_{100}$

Col B: -10,000

11. Col A: The standard deviation of 10, 20, 50, 80, 90.

Col B: The standard deviation of 11, 30, 50, 70, 90.

12. Given four co-ordinates (1,6), (5,6), (1,3), (5,3) in xy-coordinate. If all these points are connected to form a square, then which of the options below lie within the square?

A. (2,2)

B. (4,4)

C. (5,2)

D. (6,6)

E. (6,8).

13. If  $x < 0$  &  $y \neq 0$ , then

Col A:  $x \cdot y^2$

Col B: 0

14. If a line  $y = mx + b$  has x-intercept (-2) and y-intercept 3, then

Col A: Slope of the line

Col B:  $2/3$

15. If  $x < 0$ , then  $(-x)(-x)/(-x) = ?$



16. If  $m > n$  &  $m, n$  are positive integers, then

Col A:  $1/n^{(-m)}$

Col B:  $1/m^{(-n)}$

17. If a square is divided into  $n^2$  equal small squares ( $n \geq 4$ : integer), then the number of small squares containing only one of their sides along the perimeter of the big square is?

18. 10 persons can watch a movie in 7 days. What is the probability that at least two of them watch on the same day?

19. If  $[z]$  represents greatest value less than or equal to  $z$  and  $x$  &  $y$  are positive, then

Col A:  $[x] + [y]$

Col B:  $[x+y]$

20. If  $x < 0$ , then

Col A:  $-x$

Col B:  $|x|$

21. If  $n$  is a positive integer, the number of primes in between  $n$  and  $n+6$  cannot be?

A. 0

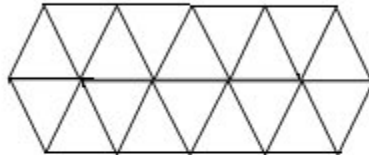
B. 2

C. 6

D. 3

E. 4

22.



Given a figure of 18 equilateral triangles as above with each side length of 1. What is the perimeter of the figure?

23. Given a right angled cylinder of diameter 20 feet and height 4 feet. What is the volume of the cylinder in gallons, when it is up to a depth of 3 feet and 6 inches? (Hint: 1 foot = 12 inches; 1 gallon = 231 cubic inches)

24. Given set A: { 15,16,17,18,19} and set B: { 6,7,8,9} . If set C is the sum of set A and set B elements, then what are the different possible values of set C?

25. A figure was given and it was mentioned as a parallelogram. The adjacent sides were given as 10 each.

Col A: Length of a diagonal BD of the parallelogram

Col B: 8

26. A person on bicycle travels  $\frac{2}{3}$ rd of distance. After travelling  $\frac{2}{3}$ rd distance, due to some problem with his bicycle, he travels the rest of the distance by walking. If the time taken by the person in walking is 3 times the time taken in travelling by bicycle, then how many times the walking speed, is the man's cycling speed?

27. If  $t^4 = 16$ , then

Col A: t

Col B: 2

28. In every month, a hospital is opened only in last week. If 10 people travel through bus to hospital, what is the probability that at least two people travel on the same day?

29. Given that 'r' is a three digit number such that it contains 'x' in its hundredth place, 'y' in tens place, 'z' in units place. If  $N_r(N \text{ subscript } r)$  is defined as 'x' is multiplied by 9, 'y' is multiplied by 6 and 'z' is multiplied by 2 and the sum of these three products, then what is the value of the  $N_{735}$  (here 735 is subscript )?

A. 72

B. 79

C. 86

D. 91

---

Admin,  
drrajusgre.com

1)D

2)-30

3)A

4)B

5)3/27

6)99/202

7)-4

🤖D

9)B

10)B

11)B

12)?

13)B

14)A

15)x

16)B

17)?

18)🤖?

19)D

20)C

21)?

22)12

23)?

24)8

- 25)A  
26)6  
27)D  
28)😬?( i think 3/7)  
29)91

let me know i am wrong.....



- Three machines can do a work in 4 hrs, 6 hrs, 8 hrs respectively. If all the 3 machines work together and complete the work, what is the part of the work done by the fastest machine?
- If  $W = 10^4$ ,  $Y = 10^{-4}$  and  $Z = (W+Y)/3W$ , then the value of  $Z = ?$
- Col A: number of prime factors of 300  
Col B: number of prime factors of 500
- ColA: modulus (-7) + modulus(3) - modulus(-10)  
ColB: 0
- ColA:  $3^{(-😬)} - 3^{(-9)} - 3^{(-9)}$   
ColB :  $3^{(-9)}$
- Given  $a_n = a_{(n-1)} - a_{(n-2)}$ ,  $a_1 = -5$  &  $a_2 = 4$ . For  $n > 2$ , what is the sum of first 100 terms of n. { i.e (sigma  $(a_n)$  from  $n= 3$  to 103} .  
(Here n, n-1, n-2, 1, 2, 100 are suffixes).
- Given that, there are 500 people in a town and 50% own computers and 26% own computers with internet access. Whatt is the percentage of people who have computers and don't have access to internet?
- Col A: Volume of a cube of surface area  $150*y^2$   
Col B:  $125*y^3$ .
- There are 15 employes in company, the mean of salaries of the least played seven employes is given and the mean of the salaries of the highest payed employees is given  
Col A: the median of the salaries of the 15 employes.  
Col B: some value very close to the mean of the above given means was given.
- There are 'X' number of students in a class. 'Y' number of them play football and 'Z' play basket ball. If 'N' number of them play niether then what is the number of students who play both?  
(Question is similar to this with numerical values given in place of X, Y, Z & N)
- Col A: 0.625% of 25  
Col B: 6.25% of 25

- 6/13
- multiple choise needed
- B
- C
- the question is not clear
- 1
- 48%
- C
- D

10.  $Y+Z+N-X$

11. A